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A FILM INSTITUTE WITHIN SIGHT

SINCE we last touched upon the subject in our summer issue, considerable further progress has taken place towards bringing into being a National Film Institute such as is recommended by the Commission on Educational and Cultural Films. During July the new clause of the Sunday Performances (Regulation) Bill, constituting a Cinematograph Fund, passed the House of Lords and became law. This clause, providing that up to five per cent. of whatever part of the proceeds of Sunday cinemas is earmarked for charity shall be collected and administered by the Privy Council "for the development of the films as a means of entertainment and instruction," at once brought the scheme for a Film Institute within the bounds of immediate practicability. This has been

recognised by the film trade, as represented in correspondence which subsequently appeared in *The Times* and elsewhere. For instance, Mr. S. Rowson, manager of Ideal Films and president of the Cinematograph Society, has declared that the film trade is not opposed in principle to the establishment of such an institute, provided that the trade can participate effectively in its working and management. On the other hand, it is not surprising that the rather vague terms in which the new Cinematograph Fund Clause has been drafted should have given encouragement to speculation of various kinds concerning the precise method of its application. The reason for this vagueness is clear. Parliament wished to ensure a cautious experiment with a Film Institute, leaving room



ZWEI MENNSCHEN
Ufa production directed
by Erich Waschneck

for a reversal of policy should the experiment prove unsatisfactory. But, as always happens in cases of this sort, no sooner was the new Fund provided for than a group of mushroom projects sprang up as if by magic for putting the fund to this or that freakish use. Thus, wide publicity was given to a rather cruel suggestion that school teachers should apply individually to the Privy Council for the Fund to be doled out in small portions for the purchase of projectors for schools, on the principle of "first come, first served." We call this proposal cruel, because it obviously meant leading unwary teachers, in the vulgar phrase, "up the garden." For it is certain that, however this Fund is used, it would be wasteful to fritter it away arbitrarily in small sums for purchasing apparatus without expert advice. Indeed, one of the reasons for desiring the existence of a Film Institute is that effective expert advice should be available to all schools and educational institutions seeking to equip themselves with suitable apparatus.

Another scheme, put out obviously as a "feeler," envisaged the establishment of "a Royal Film Institution" under trade management and control. The objection to this is that the representatives of organised education would never consent to participate in an Institute which was primarily controlled from the commercial end. There is here all the difference in the world between co-operation upon equal terms and a one-sided balance of influence which would prevent any effective opening up of the new market for educational and cultural films. We understand, moreover, that soundings have already been taken by the trade to see whether the Government Departments concerned would welcome the establishment of such an Institute under trade auspices; but the cool reception given to this idea has created a favourable atmosphere for the negotiations which are now proceeding between the Commission on Educational and Cultural Films and the film trade for an agreed scheme for an independent Institute.

Such doubts as have been expressed in trade circles concerning this Institute appear to arise either from the fear lest the

Institute might attempt to produce films itself, or from the fear that the Institute might be used in some way by the Government as a means of more stringent film censorship. We do not believe that either of these fears is justified. It has been explicitly said over and over again that a National Film Institute will not itself produce films, having neither the technical nor financial resources for this kind of work. The Institute will leave film production to existing film producers, only advising them as to the kind of film which is needed and upon the best way to give it publicity. Nor will the Film Institute undertake the thankless task of censorship in the restrictive sense, since the whole case for a Film Institute rests upon the belief that *constructive* action to encourage *good* films is better than *restrictive* action to discourage *bad* ones.

In the meantime, the Commission on Educational and Cultural Films itself has been actively engaged in drafting a detailed scheme for a Film Institute with a view to applying this autumn to the Privy Council for a Royal Charter on its behalf. Several opportunities have recently been taken of sounding public opinion on the merits of the main principles of the proposal, and on all these occasions there has been a surprisingly favourable response. During the coming autumn representative conferences have been arranged to be held in all parts of the country, Scotland, the North, the Midlands, and the West Country. At these conferences, to which religious, educational, cultural, political and business interests are being invited to send representatives, the Film Institute proposal will be fully discussed and local machinery to support the movement in its favour in London will be set going. It may fairly be considered, therefore, that a national movement is now under way for the launching of this promising experiment, which we hope will receive generous backing from all quarters that have the best interests of the film at heart. No alternative proposal worthy of serious consideration has been put forward; men of good will can therefore unite without reservation in favour of the one constructive scheme that holds the field.

NOTES OF THE QUARTER

Recent Addresses on the Films and Education

Active discussions of important issues connected with films and broadcasting have taken place at various conferences during the past few months. Thus, at the end of August the Sectional Meeting of the British Association for the Advancement of Science at York was devoted to a study of the Report of the Commission on Educational and Cultural Films and its scheme for a National Film Institute. As Mr. A. C. Cameron, one of the joint honorary secretaries of the Commission, emphasized in his address on this occasion,

"It is idle to go on fighting the lost battle of restriction, or to attempt to make the negative force of censorship (which has its own fit place) into a positive instrument of improvement. There is definite hope for the future if educational and cultural interests unite to foster a national movement, which, while taking the best that other countries have to offer, will make British cinematography a vital force at home and throughout the Empire. It is a form of national planning from which the finest intelligences of the country should no longer hold aloof."

Another forceful and illuminating paper was that read to the British Association at the same time by Mr. F. A. Hoare, the honorary treasurer of the Commission, on the subject of Educational Cinematography. He emphasized the part which the film could play in "the task of bringing the schools out of the quiet, academic backwaters of tradition into the main stream of modern commercial and industrial life. . . . Much of the so-called practical work in handicraft and science," he continued, "is as abstract as the literary work which stood condemned because of its lack of reality and because the desire and ability to acquire book knowledge and to master generalisations and abstract ideas is more limited in extent than was at one time supposed. It is precisely in the provision of this essential element of concreteness or reality that the film in education finds its ultimate justification."

Broadcasting and Traditional Culture

The same line of thought as that developed in Mr. Hoare's paper can also be traced in recent addresses given at the Conference of the British Institute of Adult Education at the end of September by Mr. C. A. Siepmann, the B.B.C. Director of Talks, on broadcasting, and by Mr. R. S. Lambert, the Editor of *The Listener*, on films. These two subjects were linked together for treatment under the title "The Changing Audience." Both speakers stressed the comparatively limited number of the student population hitherto influenced by adult educational activities developed along the lines of the traditional culture of our older universities; and showed how an entirely new educational technique capable of reaching audiences of millions in place of small groups of a few dozen was being evolved through broadcasting and the cinema.

Mr. Siepmann distinguished the old aristocratic culture which sought "education for leadership", from the modern democratic culture which was beginning to take shape in Russia, Italy, and in this and other countries. He regarded broadcasting as the most important force serving and responding to the emergence of this democratic culture in Britain. Mr. Lambert pointed out that the film on its educational and cultural side was at an earlier stage of development than the sister art of broadcasting because of the commercial origins of the cinema. He claimed, however, that the rigid box office standards which had hitherto rendered the film industry blind to minority interests were now breaking down, and that educators, if they would take the broadest possible view and ally themselves with religious, political and industrial interests, which also wished to make serious use of the film, had therefore a great chance of making their voices heard. The best instrument for this purpose would be the creation of a National Film Institute.

The Gramophone in Education

The Commission of Enquiry into the Gramophone in Education, to which we made reference in our opening issue, has now held its first meeting and mapped out its line of work. The membership of the Commission, which is under the chairmanship of Mr. A. Clow Ford, External Registrar of London University, is as follows:—Professor Percy Buck, Mr. G. S. M. Ellis (National Union of Teachers), Miss E. Horne, Mr. R. Hyams (editor of *Education*), Mr. A. Lloyd James, Professor Daniel Jones, Professor Keel, Mr. R. S. Lambert, Miss A. G. Philip (Board of Education), Mr. Walter Ripman, Miss Mary Somerville (B.B.C.), Mr. P. Wilson, and Mr. J. W. Brown (secretary). In addition it has been decided to invite two practising teachers (elementary and secondary) with actual experience in using the gramophone in teaching, and a Director of Education, to serve on the Commission. A panel of consultants is to be formed, so as to enable the commission to have the help of representative educators living outside London and therefore unable to attend the Commission's meetings regularly. Furthermore, Mr. W. J. Hands, Principal of the Education Department of the H.M.V. and Columbia Graphophone Companies, and Miss Murphy of the Linguaphone Institute, have agreed to act as advisers to the Commission, particularly on matters affecting gramophone and record production and technique. At its first meeting held on July 19th last, the Commission decided to set up four committees: one executive, one technical, one to deal with language (including elocution and drama), and one to deal with music (including dancing and eurhythmics). An approach is being made to certain educational trusts for financial assistance to carry out the work of the Commission.



"THE IDEAL," LAMBETH
The church-cinema of the Lambeth Mission after a week-day matinee for children: an interesting letter from the Rev. Thomas Tiplady, its organiser, on the subject of religious and educational films: appears on this page

A Religious Film Society

We have received from the Rev. Thomas Tiplady, of the Lambeth Mission, Vauxhall, an interesting corroboration of the tendency noted in an article which we publish on another page for the Churches to make increasing use of films for religious education.

Mr. Tiplady writes:—"During the last few months I have had many letters of enquiry about films, cinema machines and cinema services. There is throughout the country a growing desire to use films for religious and educational purposes; and I believe that this desire could now be realized if we had a religious and educational film society to gather and distribute knowledge about films and machines. At present every minister has to forage for himself. There are many educational films, Empire marketing films and religious films, but they belong to different organizations and are known only in their own circles. There are also many films used in the commercial cinemas which are suitable for church use, but when they have had their run in the cinemas they are allowed to perish. We need a society with a paid secretary (1) to collect a list of all the suitable films available for use in churches and Sunday schools and to give particulars about them to all who wish to rent them: (2) to buy films such as *THE KING OF KINGS*, *THE SILENT VOICE* and *WAR IS HELL* when they are no longer of value to the commercial cinemas and rent them out to churches: (3) to foster the production of religious and educational films: (4) to give advice about licenses, machines and structural requirements, and (5) to supply a list of the books, pamphlets and magazines dealing with the cinema from the religious and educational standpoint.

"We need a society which will do for religious and educational films what the British and Foreign Bible Society has done for the Bible. It must be a National Society—free from Government control and one that will keep in close touch with every organization at home and abroad which produces or

distributes films. People write to me for information, but though I have run a cinema for four years, my knowledge of this vast subject is still slight. Only a National Society could gather and distribute the

information which the churches and educational institutions of the country require.

"Through the courtesy of your columns I would like to make a public appeal to men and women who believe in the future of the film to try and form such a national society as I have indicated."

History Teaching by Pictures

The influence of the cinema in making itself felt in the book world, where there is an increasing output of books consisting entirely of pictures or mainly of pictures with a text strictly subordinated to them. In education the picture book is becoming recognised as an important means of appealing to those many, both children and adults, whose social faculty is stronger than their literary faculty. The subject of history is particularly well suited for these pictorial methods of teaching, and many students, if their powers of observation were trained, could derive great benefit from the study of contemporary prints, drawings and paintings, as well as of diagrams, charts and tables, in their bearing upon social and economic life. This is one of the purposes underlying the issue by the British Institute of Adult Education of *A Historian's Scrap-book* (price 2s. 6d.) which is described as "a picture gallery of life during the nineteenth century", selected and edited by R. S. Lambert. The volume, which is issued at a very low price so as to appeal to adult students and classes in secondary schools, comprises over 150 reproductions from original sources of pictures illustrating the agriculture, trade, industry, politics, social system, science and other aspects of nineteenth century history. The pictures are, most of them, out of the ordinary and rarely to be met with; and they are conveniently grouped according to subject, so as to fit in with the usual course of study in social and industrial history. There is, however, nothing pedagogic about the appearance of the volume, which is sure to have attraction for anyone who likes pictures, and would make a cheap and inexpensive present.

STANDARDS OF FILM CENSORSHIP

By Walter Ashley

OF the 600 or so new films shown in London during the 1931-32 film year (which ends, not in December, but in August), 120, or about one in five, have reached a sufficiently high standard of merit to be worthy of detailed examination.

The following table shows the nationalities of these 120 films grouped according to merit :

	First-Class	All but First-Class	Very Good	Good	Above the Average	Totals	%
British	1	3	9	5	7	25	20.8
American	4	11	19	24	23	81	67.5
German	3	4	2	—	—	9	7.5
French	2	—	—	1	—	3	2.5
Russian	—	2	—	—	—	2	1.7
	10	20	30	30	30	120	

This grouping is, of course, largely a matter of personal opinion, but I do not think that that of any other reader of SIGHT AND SOUND who had seen all the films in question would be far different.

The only British film in the first group is SUNSHINE SUSIE ; there are four American : THE GUARDSMAN, THE SILENT VOICE, SHANGHAI EXPRESS and ARROW-SMITH ; three German—the first two, if not all, of which should, in my view, be put above all the others :—MÄDCHEN IN UNIFORM, KAMERADSHAFT and CONGRESS DANCES ; and two French : A NOUS LA LIBERTÉ and UN SOIR DE RAFLE.

Eighty, or exactly two thirds, of the 120 films were regarded by the Censors as unsuitable for children, and received an "A" certificate. Forty, or exactly one third, were regarded by the Censors as suitable for all ages and were awarded a "U" certificate. The following table shows the certificates awarded the films in the various groups :

Certificate	First-Class	All but First-Class	Very Good	Good	Above the Average	Totals	%
"A"	7	16	17	21	19	80	66.6
"U"	3	4	13	9	11	40	33.3
	10	20	30	30	30	120	

The most significant feature of these figures, apart from the totals, is that 77 % of the films in the first two groups were given "A" certificates as compared with 63% of those in the bottom three groups ; 23% were given "U" certificates in the first two groups as compared with 37% in the bottom three.

In other words, and speaking generally, *the better the film, the less likely is it to be passed as suitable for children*—a conclusion which cannot be regarded as anything but disquieting.

These figures, in regard both to nationalities and Censors' certificates are by no means exceptional. On the contrary, similar analyses which I have made

from time to time have produced almost identical results.

The percentage of British films among the best films of any particular period, for example, has always remained close to 20, never much above or below ; that of American films have never moved far from 70 ; that of the Continental films combined has always approximated to 10.

In the same way, the percentage of "A" films has never, in these analyses, been more than 69 or less than 66 ; that of "U" films never less than 31 or more than 34. There has always been the same tendency, too, for the percentage of "A" films to rise as we move towards the top of the list, to fall as we approach the bottom.

It is safe to say, therefore, that at the present moment approximately *two good films out of every three*, approximately *three first-class films out of every four*, are regarded by the Board of Censors as unsuitable for children.

This proportion is surely far too high. It means, among other things, that, when a parent or teacher sets out to visit the cinema with some children, he must face the fact that, when he gets there, he will almost certainly find a film which, being good, will have been regarded by the Censors as unsuitable for children, or, being bad, will bore himself, and probably also the children, to distraction.

If, as is common, there are *two* feature pictures on the programme, he must realize that the chances that one or other of them will be either intensely boring or definitely unsuitable-for-children are almost overwhelming.

This is assuming, of course, that the Censors' judgment is a sound one ; or, at any rate, that the parent or teacher, not having previously seen the films himself and knowing it is the Censors' job to see all of them, accepts that judgment as likely to be sounder, in knowledge, than his own, in ignorance.

In actual fact, the Censors' judgment is not infrequently at fault, as every student of the films knows. There are, for example, at least half a dozen "A" films on my list which could have been given "U" certificates with at least as much propriety as many to whom such certificates were awarded ; three or four "U" films which are no more suitable for children than the Divorce Court.

A certain number of mistakes of this kind, though not perhaps as many as occur, may be inevitable under the present system of censorship. What is more serious is that there has long been a tendency on the part of the Censors to concern themselves unduly with this or that trifling "incident"—the flash of a bare back, maybe, or the glimpse of a bath sponge rolling down a staircase—and not enough with the central theme of a picture.



EN NATT, by Gustav Molander (Svenska), with Karin Swanström as Minka. This is the first Swedish talking picture to be shown in England, and will be running at the Academy Theatre, London, during October

It is high time they realised that a questionable "incident," although the picture might be better without it, is probably forgotten the next moment in the sweep of the action; but that, if the central ideas conveyed by the story are immoral—the idea, for example, repeated *ad nauseam*, that a woman may fall and fall and *fall* and yet remain as pure as crystal at heart—the harm they may do is immeasurable.

The main responsibility for the excessive number of "A" films, however, does not rest with the Censors but with the producing companies. Some excellent films, of course, inevitably owe some of their success, some of their appeal to the adult intelligence, to the very fact that they have in them something, some intellectual or emotional content, which, while not necessarily "unpleasant," is beyond the comprehension of, or in other ways unsuitable for, the ordinary child.

It should not be beyond the wit of every company, however, to produce at any rate a certain number of films which are both good of their kind *and* suitable for all ages. It has been done—as witness *SUNSHINE SUSIE*, *A NOUS LA LIBERTÉ*, *MEN LIKE THESE*, and *HUCKLEBERRY FINN*, to name but four. But very many producers seem totally incapable of doing it—except by choosing a "safe," and therefore limited, subject like travel or the African jungle.

Not one of them but, with imagination, confidence in his writers—and, it may be added, a few elementary moral standards of his own—could find any number of wider subjects *and* deal with them in such a way as to satisfy the adult mind and at the same time give no offence to those whose intelligences are immature.

Neither Censors nor producers will go to much trouble in the matter, however, until the public in general, and particularly those concerned with youth, rise up and say: "one good film in four of such a kind as to be passed as suitable for children is not enough. We do not ask that all four of them should be so—in fact, we should regret it if they were. But we do not think it unreasonable to demand that at least two, if not three, of them should fall within that category."



FILMING THE PENGUIN: Miss Field directs operations at the Zoo (British Instructional Films Ltd.)

MAKING NATURE FILMS

By Mary Field

Director of "The Secrets of Nature" Films

PEOPLE often say that it must be easy enough to make a Nature film. All that you need is a camera and patience. This is perfectly true if both camera and patience are recognised as nouns of assembly.

First consider what "camera" implies. If your nature picture is to be a talking one—and nowadays it is little use if it is not—you must use a sound-camera running at a uniform speed of twenty-four pictures to the second. Such a camera costs from £800 to £1,000. It is battery-driven, the battery alone needing one strong labourer to carry it about. It is possible, however, to use a hand-turned camera on a natural subject; but it is difficult to crank regularly at the rate of a foot and a half a second, and, if you vary or fall below this standard, your action will be jerky or too fast. A hand-turned camera is, of course, much cheaper than a motor-driven one, but, as it will be of older design, it will probably need to be fitted with new rapid lenses. Every modern camera is fitted for ordinary studio and exterior purposes with at least four lenses, a two-inch, a three-inch, a six-inch and a one-and-a-half inch wide-angled lens. For nature work you will be glad of a one-inch lens, with an even wider angle to give you a bigger field in which to follow action; and you will also need a sixteen-inch and a twenty-four inch telescopic lens with which to get close views of your subject from a distance away.

The twenty-four inch lens is a fearsome thing, like a telescope, and needs special metal braces to hold it firmly in place on the camera and the tripod. The tripod you use for nature cinematography must, of course, have a gyro-head which enables you to follow action up and down and from side to side, with ease and speed. An ordinary tripod, although its legs will telescope in and out, is often too large for the nature photographer who will also need a baby tripod, made probably of metal, light to carry, and strong to support the weight of the camera. The legs of even a baby tripod frequently take up more room than you have to spare in "hide" or cage. Out of bitter experience, my camera-man and I evolved what we call the "top-hat," a metal camera-stand, like a stove-pipe in shape, made up of detachable metal rings with a gyro-head on top. The correct height is obtained by adding or removing rings. The weight of the metal holds the stand steady while the camera moves. This "top-hat" is a great success and is often hired by other studios for "shots" from difficult angles. Its weight is its only drawback—like the camera-battery, it demands a labourer to itself.

All these tripods take even the most expert cinematographer some time to set up. For very quick work, which is so often necessary in filming natural subjects, you must use an automatic camera. This is a small camera, costing about £200 to £300, which, when set going, turns automatically. You can hold it in your hands, support it on the nearest log or, better still, start it, put it in position, and leave it by itself. This last method is the one by which so many close-ups of birds and animals are obtained. The drawbacks to automatic cameras are that they seldom have such good lenses as other cameras, and that they only hold about two hundred feet of film at a time—a length which is soon used up.

A further difficulty is that you must have a very steady hand if you are going to hold an automatic. I once saw some film, turned in Africa, and you could appreciate that every time big game approached the camera-man trembled with excitement. He trembled so much that he shook his subjects right in and out of the picture.

Many natural subjects are greatly improved if a section of slow-motion film is included. A slow-motion camera, hand-turned, costs about £800. It has its own special tripod, heavily braced with metal to prevent the vibration which results from film being forced through at immense speed. With film being shown at talking-picture rate, you have to take about three hundred pictures to the second to get anything like real slow motion. This speed requires skill and force on the part of the cinematographer. I have seen a camera-man wrap his hand in his handkerchief and then flay his fore-finger with the force needed to get up the speed for a slow-motion picture of a frog jumping. Unluckily the slow motion camera is very noisy and frightens many animals and birds. Its immense speed also makes it difficult to guarantee that it will not scratch the film which passes through the gate. Here is another difficulty that arises in nature cinematography—to get the best results you should use the new grey-backed super-sensitive film-stock. This gives you all the exquisite detail of shading in pelt and plumage. Together with quick lenses, it also enables you to film on dull days and in dark woodland spots without waiting for sunshine or trying to reflect light. But unfortunately super-sensitive stock appears to be sensitive in more ways than one and, when used out of doors in a damp atmosphere, is likely to scratch in the camera. Often an excellent scene is ruined in this way.

For plant and microscopic nature films, such as Percy Smith makes for British Instructional Films, you need cameras fitted with special microscopic lenses. These cameras are often embedded in concrete to avoid any possibility of vibration. To film plant growth in even lighting, day and night for perhaps three weeks on end, special mechanical apparatus has to be evolved, controlling both lighting and camera. The lighting has also to be specially cooled so as not to irritate the subjects or melt the gelatine on which they are often mounted. This cooling is done either by passing the light over water, or by filtering it, or by shuttering off the rays between each picture. As the different creatures photographed in this type of film react differently to the camera, Mr. Smith can only work on the trial and error system. It often takes him three seasons to photograph one short film lasting for eight to ten minutes on the screen. So we come to the second simple need of the nature cinematographer—patience.

You require almost super-human patience to direct a nature film. Human actors are difficult enough, at times, to handle, but over animals, birds, and fishes, which are not interested in publicity or salaries, and which have no desire to star

in your next picture, you have the minimum of control. You may select a background for action but your performer will have completely different views. Your continuity may require movement from left to right but you cannot enforce it. You can only be patient and you must have real patience, not anxiety and irritation suppressed and controlled. My experience is that natural subjects are surprisingly sensitive to atmosphere and, if you are on edge, they become nervy too. It is difficult to remain calm as time and film stock are used up with no results, for these are two things in which studio managers try to enforce economy; but you must be prepared to waste some thousands of feet in taking a nature film. It is no use photographing an isolated piece of action, for how are you to blend it with the completed film? You must have proper continuity of movement in a nature film, and, to obtain it, you must be prepared to spend money and also be continually on the alert, noticing, while the film is being taken, how it can be edited, what the central theme will prove to be (for you cannot dictate the theme of a nature-picture) and how you can embellish and strengthen the subject. It is this "film-sense" that amateur cinematographers so woefully lack. Often we are shown amateur nature films which, though well photographed, are not films at all but just a series of isolated shots which could never be welded into one harmonious whole.

If natural sounds are to be added to the film, it is, in my experience, better not to try and take both sound and picture at the same time. A bird is not likely to sit on the bough upon which you have focussed and, at the same time, to sing obligingly to the left where the microphone has been placed. It is easier and quicker to take sound and picture separately and synchronise them in the editing, sending up a silent thanksgiving that, when the nightingale sings, there does not have to be lip—or rather beak—synchronisation. The fitting of a commentary is also a work of patience for, contrary to the accepted idea, the film is not first cut and the commentary then added, but the film has to be lengthened and shortened to fit the words, just as the words have to be varied to fit the picture. Staccato words for quick action, liquid words for slow action—but a description of the principles controlling the fitting of commentaries needs an article to itself. More patience is needed in wrestling with the musical director, if a musical setting is to be put to the film, for the perfect setting should be so unobtrusive that you are unaware of it.

Now the picture is finished.

The film trade will waste little time on it, describing it as just an interest picture. Educationists will be contemptuous, condemning it as having been edited for theatrical purposes, though Heaven knows how nature films could continue to be made, if they did not get back some money by theatrical bookings. It would be a pity if the producers of nature pictures used up all their patience in making the films—they need it most when the films have been made.

CINEMA LESSONS AND THEIR VALUE

THE GLASGOW EXPERIMENT

By Sir Charles Cleland, K.B.E., M.V.O., J.P., LL.D.

The Glasgow Experiment, says Sir Charles Cleland, has proved the advantages of visual education. In this test, organised by the Glasgow Education Committee, five schools took part

WHILE in certain educational enterprises we in Glasgow pride ourselves on being pioneers, we have in the matter of visual education been more inclined to depend, with all due racial caution, on the research of others. That being so, we were content to accept without serious question the claims of the film-enthusiasts with regard to "background films" and other films for mass exhibition in schools.

There was, however, one field of research which we wished to explore for ourselves. We felt that only by trial in our own schools could we find out the extent to which the cinematograph could be of service, not merely as a general teaching aid in the widest sense, but also, and more particularly, as a *teaching instrument* in the ordinary classrooms. How far could cinema lessons be made to fit into the ordinary scheme of work, and what was their value to the teacher and to the pupils? These were the questions we wished to answer, and we left it to the schools to supply that answer.

In so far as the conduct of the experiment was concerned, we accepted the recommendations of our officials, which were as follows:—

- (1) That the experiment should be confined to five of the larger schools, three secondary and two central;
- (2) That the subject for experiment should be geography;
- (3) That in each school the head should select two classes of forty pupils each, of approximately the same general ability and at the same stage of advancement, one to be the cinema class, the other the non-cinema or control class;
- (4) That the same geography teacher should take charge of the two classes, giving one the ordinary geography lesson *plus* cinema, and the other the ordinary geography lesson *plus* the most modern non-cinema aids which could reasonably be supplied;
- (5) That the classes should be tested after six months to determine the *immediate* effect of cinema instruction and at a later stage to determine the *permanence* of that effect.

The supply of suitable films for classroom work might have caused us some difficulty had we not secured the enthusiastic co-operation of the Scottish Educational Cinema Society, a body largely composed of young teachers keenly interested in the work and possessed of that insight into classroom needs without which the best of film-producers may go very far astray. Their task was to re-edit existing educational films, to make them more suitable for class use, to produce new films to meet our exact requirements and, from these sources of supply to maintain a regular service of films for the five selected schools. In this work they had the valuable assistance of the Empire Marketing Board, British Instructional Films, and the Pathescope Library. To the same society we are also indebted for the use of the apparatus used in the experiment.

After some weeks of preparation, the experiment began at the end of January of this year. Between that date and the end of June, when our schools closed, the classes under experiment had forty lessons in geography, twenty of which were cinema lessons. In the last week of the session tests were applied in the schools—ordinary scholastic tests based on the scheme of work in each school. Further tests were applied to the same pupils after the summer holidays in order to determine, if possible, the permanence of the impression made.

The result has been extremely interesting. I do not wish to base my present conclusions on figures, especially as the full statistics have not yet been before the Committee, but to my mind they prove beyond doubt

- (1) that the cinema can be used as a classroom adjunct to impart a knowledge of facts;
- (2) that facts so learned are remembered longer and more accurately;
- (3) that through the medium of the cinema children arrive at a more real understanding of the subject they are studying.

There would appear to be a further advantage in this, that the child learning geography—certain features of it, at least—without the cinema depends greatly on the teacher's power of presentation for the vividness of the picture created in his mind. In any *immediate* test such a child may by unconsciously reproducing the words of a good teacher do extremely well, whereas in a delayed test his verbal memory may fail him. The cinema child having had to create his own answer *from his own vocabulary*, although under the teacher's guidance, shows up better in the *delayed* test, that is to say the effect, as far as expression is concerned, is more permanent. To quote from reports by the teachers, the cinema children "write more interestingly and in much greater detail, give more facts, and show more personal interest and knowledge."

The teachers took up the experiment in every case with an open mind—we deliberately excluded the film-enthusiast. They themselves operated the cinema—a 9.5 mm. projector. They were in the counsels of those who prepared the films so that they had full opportunity of expressing their views. They conducted the tests and helped to frame the reports. Their considered opinion is therefore most interesting and valuable.

I may add that only silent films were used. At a future time we may experiment with sound-films, but meanwhile we have a sufficiently complicated problem before us in working out the financial side of the scheme in regard to apparatus and transport.

FILMS IN THE SCHOOLROOM

A THREE YEARS' RECORD

By C. Brawn

Addison Gardens L.C.C. Boys' School

In Mr. Brawn's hands the cinema in the classroom has passed beyond the experimental stage, and this account of three years' experience with educational films is of the greatest practical interest

MUCH has been written as to the merits and demerits of the cinema as an educative medium. Unfortunately the well-informed writing is not as widely read as it deserves to be; most of it having been published in pamphlet form by the education and watch committees of various municipalities or by learned societies. These publications contain fully documented records of research work, and between them serve as a fairly accurate gauge of juvenile and adolescent taste and as a fairly accurate quantitative analysis of the cinema's success as a teaching instrument.

Equally unfortunately, a good deal of ill-informed and/or ill-considered writing has appeared in certain sections of the popular press, a perusal of which leaves the reader wondering whether "the pictures" are a sheer waste of time, or whether, on the other hand, they should not entirely take the place of teachers in the class-rooms. Quite recently this press seems to have been trying to prejudice the public against the proposed new Film Institute and has loudly cried that it is foredoomed to failure.

My own experience of the use of films in an elementary school has been deeply interesting to me, and may be of some interest to others.

It is now just over three years since I installed a projector. This was a gift from a public spirited friend. The machine is a Pathé Reinforced—a standard size instrument, with which I use a 1,000 watt lamp and mirror instead of the open arc which was its light source when given to me. The light is cooled by being passed through a cell containing a solution of alum, which does not appreciably affect the intensity of the beam. With this filter in use I have found that a film will not blister when left in the gate for five minutes. Without it, non-flam stock blisters and chars in a few seconds, and celluloid would of course ignite. In spite of this, *I never stop an illuminated film in the gate*, and I would strongly urge other users of films to refrain from doing so, notwithstanding instrument makers' assurances as to the safety of their machines. I believe that the machines are—as stated—safe, but I know that prolonged exposure to even the dimmed rays will expand or bulge films. I know, because I have had breakages which, when examined, shewed that the film had been subjected to prolonged exposure to heat, it being either well over 35 mm. wide, or else horribly bulged. There is a further reason for not stopping the film, to which I will refer later.

My instrument is motor driven and the spool boxes will accommodate 14 inch spools. The purchase of such a machine (new) would obviously be im-

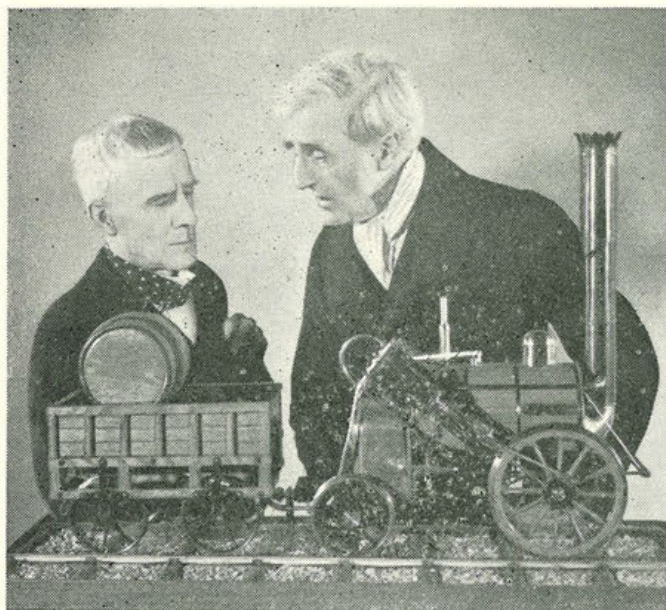
possible for the vast majority of elementary schools, although good second-hand machines of this class can be picked up for about £30.

In the three years during which I have been using the kinema I have given about an hour's programme every week, without exception, so that the thing is quite institutional and the boys have long regarded it as part of the regular routine. Thus there is no excitement due to novelty, but that interest does not flag on account of familiarity or inevitability is, I think, proved by the fact that on occasions when the showing day has had to be altered, the peak attendance has still coincided with "film day." There is no charge for admittance and attendance is compulsory.

Most of the films I use are lent freely, the only cost to the school being for return carriage, and during the three years mentioned I have run through more than four hundred reels, covering over two hundred subjects. These have been obtained mostly from Government Departments, Dominion Offices, travel bureaux, and great trading and manufacturing concerns, and I have lists of hundreds of other films which I have not yet had occasion to use. The fear of non-availability of films need not therefore deter anyone from installing a projector. A fairly comprehensive list of sources of supply appears in Appendix G. of "The Film in National Life," the report of an enquiry conducted by the Commission on Educational and Cultural Films into the service which the cinematograph may render to education and social progress.

At first my reeling progress, if I may so term it, was rather erratic, and the programme ranged from "shoes to ships and sealing wax, and cabbages and kings," but later, as knowledge of the wealth of available material came, orderly programmes came too, and it is now possible to arrange a term's film syllabus in advance. Thus for a year I was able to build up a series of illustrations to supplement the B.B.C.'s Friday afternoon talks to schools on "People and Lands of the Empire." The boys saw the people and lands on Wednesdays, and on the Fridays they heard travellers tell of their experiences in the same lands. It is not open to doubt but that the pictures helped them to appreciate the talks.

Last term the screen was used to illustrate means of transport in many parts of the earth, and we ranged from kayaks to camels, from rafts to reindeer, and from donkeys to dirigibles. This term I hope to shew production of various raw products throughout the Empire, and their subsequent manufacture and distribution in this country.



From *ENGLAND AWAKE* (Wardour) by John Buchan and Bruce Woolfe; directed by Stuart Legg. George Stephenson explains the working of "The Rocket"

As to the quality of films shewn I can definitely say that I have not yet had the pleasure of projecting a perfect teaching film. Some have come very near to perfection, but even the best have left room for the later questions "Where? What? Why? How?" Obviously this is scarcely the producer's fault, as up to the present very few films have been made primarily for schools, but we are very thankful for what we can get and naturally anxious to supply the required information when we can. One real difficulty is that it is rarely possible for teachers to have a pre-view, so that it is almost impossible to make a satisfactory running commentary. Some of the sequences are extremely short, and what is clear to the adult is obscure to the child with his limited experience, and the screen time does not permit of explanation. This is where there is temptation to stop the film, and I agree that the film should be stopped and the necessary information supplied; but the light should be cut off from the film at the same time. I have found that the mere arresting of motion in a picture causes a sense of annoyance in the audience, so my practice is to switch over from the kinema to a fixed slide when absolutely necessary. A diagrammatic sketch can be made beforehand in a very few minutes, and a simple switching arrangement cuts off the light from the film, stops the motor, and at the same time illuminates the slide; thus the explanatory talk can be given without fear of damaging the film. This has the beneficial effect of resting the children's eyes for a minute or so.

I usually shew the hour's programme to about two hundred children at a time and sometimes make a commentary with the help of a microphone and amplifier. This method has certain advantages over "talkie" films, as these are not made to any great extent especially for children. The audience is

seated in the school hall and the projector is in an adjoining classroom, so that the attention of the children is not distracted by its noise.

As to the results achieved by the use of the cinema in our school it is somewhat difficult to speak definitely, as no attempt has been made to use it as a sole means of instruction on any point, but rather it has been used to broaden the children's outlook, and to supply local colour and a background, especially to geography. It would be a simple matter to obtain a reasonably accurate numerical index of success in teaching by running a film-taught group and an orally-taught group of equal ability as a control, and this has been done in schools with silent films by Miss F. Consitt, for the Historical Association, and with sound films in the Middlesex County area; while Sheffield, Birkenhead, Birmingham and London have compiled some very interesting statistics as to the attendance of children at the commercial cinema houses, and the results of this attendance.

What we have found in our school is that essays on films are much more fluent, orderly and well-informed than those inspired in any other manner, and that boys are eager to show us books and pictures that deal with the same subjects as those they have seen on the screen.

It is our custom to prepare the class beforehand by a few words as to what they are likely to see (difficult because of the lack of preview), and recapitulate afterwards to clear up obscure points. Unquestionably a second exhibition would be of immense value but lack of time does not permit this.

We have come to the conclusion that of the films available those most suitable for the junior section are those dealing with the habits and occupations of people in foreign lands, and of course animals anywhere. Factory processes and working machinery which interest the senior boys make practically no appeal to the juniors. Mere scenic films rarely seem to interest either group, probably because many of them are very feebly photographed. We are unanimously of the opinion that even with the quality of the films available they are definitely worth while.

In conclusion let me apologise for the liberal use of the first person singular in this account. It would be ungracious not to acknowledge that the idea of installation emanated from our Head Master, Mr. W. H. Dockerill, M.A., and that only his continued interest and that of the rest of the staff made the experiment the success which it undoubtedly has been.

Note: If any reader contemplates installing a projector he should write to the Secretary of the Empire Marketing Board, the High Commissioners of the various Dominions, to the Educational Films Bureau, and to Community Service Ltd., for lists of films. The total of these lists of free films will run into several hundreds—enough to start on. Among educational films for which a charge is made (10s. per reel of 1,000 ft.) those produced by British Instructional Films Ltd., and by Visual Education Ltd., are excellent.

THE FILM IN RELIGION

WHAT THE CINEMA CAN DO FOR THE CHURCH

THE Churches of this country have been slow to realise the propaganda value of the film. In failing from the first to recognise its powers of conveying a vivid impression to every type of mind—from the completely ignorant upwards—they are in danger of allowing a medium of education that might be even more valuable to them than printing itself to pass out of their hands. The cinema began and has developed as pure entertainment, and as such it has incurred the disapproval of religious bodies: it is frivolous and immoral, and particularly so on Sundays when it keeps people away from church.

Starting from this negative attitude towards the film, religion has taken a long time to recover lost ground, and England lags behind America or the rest of Europe in this respect.

On the Continent the Catholic Church has taken a very active interest in cinematography since Pope Pius XI's encyclical on "The Christian Education of the Young" (1929) which concluded with a word of praise for "educative entertainment" at cinemas. There are now a number of famous Catholic societies like the San Marco of Italy, La Bonne Presse (Paris) and Lux Honesta (Barcelona) which produce films specially designed as religious and moral propaganda; and this is in addition to the advisory and distributory activities of the Catholic Churches through their education organisations. This kind of advisory service is also undertaken for the Protestant Church abroad by the Y.M.C.A. in Germany and America.

Films as religious propaganda cover a very wide range, from those that form part of a religious service to commercial entertainment of a type that is suitable for social and welfare work. For purely religious films—screen versions of sacred stories—material has been drawn from the Bible, the lives of the saints, the Koran, the Talmud and the Mahabharata, but comparatively few pictures of this kind have been made, and there exists (notably in the Protestant Church) a certain amount of feeling against the representation of sacred personages on the screen. In this country Visual Education shows two films, *THE EXODUS FROM EGYPT* and *THE GOOD SAMARITAN*; a fine German film, *I.N.R.I.*, has been shown and Cecil B. de Mille's spectacular *KING OF KINGS*. Unused parts of the latter have been incorporated in *I AM THE WAY*, a thirteen reel film based on the Gospels, belonging to the Religious Motion Picture Foundation of New York. This company produces films in 16 mm. and 35mm. editions specially designed for religious services and Sunday schools, and distributes them through such organisations as the Pilgrim Press of Boston, the Y.M.C.A. Motion Picture Bureau and Beacon Films of New York.

The Salvation Army was very early in this field: about fifteen years ago the late Commissioner Booth Tucker took a film of the life of Christ to India and showed it to audiences of 10,000 to 15,000 in the open air at Simla. The fact that the Army does

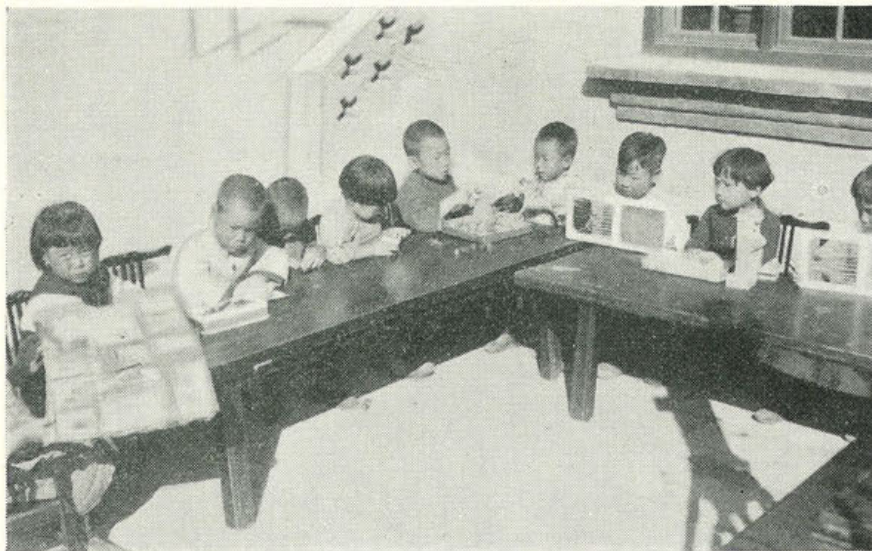
not countenance the cinema in general has restricted its use of the film since this successful pioneer effort, although a certain number of records of its missionary and welfare work have been made.

Material from the Bible has been used in several instances to make commercial entertainment pictures—by Griffiths in *INTOLERANCE*, Michael Courtice in *NOAH'S ARK* and De Mille in *THE TEN COMMANDMENTS*, but where the intention has been to exploit the dramatic rather than what the Americans call the "inspirational" qualities of the story the result hardly comes into the scope of this article.

As an instrument of moral or spiritual propaganda the film offers the greatest possibilities to religion; the force with which it can present an ideal to be attained or a course of action as worthy of imitation has been proved by some of the Soviet films; in particular *THE ROAD TO LIFE* (the regeneration of lawless youth) and *ALONE*, in which a young teacher sacrifices her prospects of personal happiness for hardship and isolation in what amounts to missionary work among savages. In both these films the ideal of service for the community is driven home with an enthusiasm and sincerity that is unescapable. The anti-war propaganda of *KAMERADSHAFT* places it in the same class, but films of this type are all too rare.

The intensity of moral purpose behind pictures like these is foreign to the western conception of the film, and in our country religious activity in the cinematograph world is usually confined to "interest" pictures, the more direct issues being avoided. There is no lack of films showing the work of missions in foreign lands (the object of these being to arouse interest and ultimately to raise funds) as well as professionally produced background pictures of the Holy Land and other countries where missionaries are working. In this field education and religion overlap, and geographical pictures are probably the most popular type of "documentary" for non-commercial programmes.

Nearly all the important missionary organisations in this country possess at least one film illustrating their activities. As a rule these films have been taken by a professional cameraman under amateur direction, and a criticism which applies to very many of them is that they suffer from the "lantern-slide eye"—the tendency to concentrate on views rather than on action, that is so often found in non-professional production. In spite of this the general level of missionary films to-day is high, both from the pictorial and the documentary point of view. There is, for instance, a sequence in *THRO' CHINA AND JAPAN* (the first English missionary talkie), showing relief work in the flooded areas of Hankow, that constitutes a record of the greatest interest; and this is only one incident of many that illustrate vividly the practical aspects of missionary work. This film, which is being shown at the London Polytechnic until November 26th, is the fourth film and first



A CHINESE KINDERGARTEN (Baptist Missionary Society) at Tai-yuanfu, Shantung; from "Thro' China to Japan"; Missionary Film Committee

talkie produced by the Missionary Film Committee, an organisation founded in 1924 by the co-operation of seven missionary societies of different denominations—the Baptist Missionary Society, the Church of England Zenana Missionary Society, the Church Missionary Society, the Church of Scotland, the London Missionary Society, the Methodist Missionary Society and the Society for the Propagation of the Gospel. After the expense of making the first picture the societies have not been called upon for further funds, the profits for each picture paying for the next. The editing and cutting of the films so that they will have a sufficiently general appeal for the audiences of the Polytechnic (where they have their first run) leaves material over which the contributing societies often find useful for their own particular propaganda. The three other pictures made on this economical plan are *AFRICA TODAY*, *INDIA TODAY*, and *PALESTINE*, all directed by Mr. T. H. Baxter, F.R.G.S., the Secretary of the Committee. Mr. Baxter accompanied the cameraman on the first three tours and gave lectures at the performances, but owing to the great demand for these films it was decided to provide *THRO' CHINA AND JAPAN* with a post-synchronised commentary.

The British and Foreign Bible Society has a 4,000 ft. standard size film, *THROUGH AFRICAN WILDS*, showing Bible distribution and village life in East Africa; the Church Army also has a 4,000 ft. film and the Salvation Army has a collection of about forty short films, including scenes of work among the leper colonies in the East Indies; General Booth's tour in Japan; rescue work in India and in the London slums, and *THE FOUNDER'S FILM*—scenes in the life of the late William Booth.

Catholic Missionary films rarely visit this country; but *RIA RAGO*, a film made in Java by Father Peter L. Bell and Father Simon P. Buick, missionary priests of the Society of the Divine Word, is at present being shown in Ireland on a propaganda tour. The two producers were sent by their society to learn their technique at Hollywood before starting to work on the film, and the result is a picture with a dramatic story, and a very strong appeal to the general

public. *RIA RAGO* has a synchronised musical accompaniment based on Javanese songs, and has been released in Holland, Germany, Austria, Poland and the United States.

Jewish propaganda films are being produced in connection with the Zionist movement, and the Zionist Federation of Great Britain and Ireland possesses, besides a number of "background" films, a six-reel picture, *NEW JEWISH LIFE IN PALESTINE*, which was recently shown at the Regal Cinema, London. This film illustrates social, religious and educational work in the newly organised towns. The Federation also has a new series of five short films (1,200 to 1,500 feet) showing particular phases of educational work in Palestine, and they are contemplating the production of 16mm. and 9.5mm. films. The pictures are distributed to local branches of the Federation without charge.

The use of existing commercial material as an indirect means of religious propaganda depends less on the attitude of the churches than on the enthusiasm of individual members. The Non-conformist disapproval of the cinema is firmly rooted, and yet the Wesleyan Methodists, owing to the interest of Dr. Soper, make regular use of cinema services. The Rev. Thomas Tiplady of the Lambeth Mission was severely criticised in Methodist circles when he opened his church, *The Ideal*, as a commercial picture theatre, not only on weekdays, but also on Sunday evenings after the church service. Mr. Tiplady (whose views on the subject of religious films appear in another part of this issue) has accepted "the pictures" without approval or condemnation as the best alternative to the streets and the readiest means of keeping in contact with the young people of his hard-working district.

In America the cinema plays a large part in the tireless campaign to entice people to church; some preachers in Hollywood show the latest star production at the beginning of their services, and use it as a text for the sermon which follows.

The film in religion is not likely to develop on these lines in England, but after prejudices have been overcome and the difficulties of expense, licensing and the technical aspects of film projection have been satisfactorily settled, there will be a vast field for the producer of religious films and a chance that the churches can scarcely afford to lose, of reaching their people through a medium which they know and understand.

Y.M.R.

THE NEW GENERATION (Stuart Legg, New Era) Sense training in a Kindergarten class by the Montessori method—which is the heavier block?

WHAT DOES THE TEACHER WANT?

By W. H. George, B.Sc.

William Rhodes' Modern School,
Chesterfield



PRACTICAL teachers must view with some pleasure and some dismay the interest taken in the educational film. There is an absence of a real expression of a teacher's needs, and a tendency to force upon him something not required.

Having had considerable experience with lantern, epidiascope, and cinema projectors I can say that the film has been my greatest aid and labour saver. In all experiments I have been most careful to consider the working teacher and the child. The film excels in descriptive work, and can really do what the teacher cannot do in this respect.

What I want at the present time is miles and miles of the ordinary news and magazine material film so that I can cull my own geography library just as I search every magazine and newspaper for epidiascope matter. This is for classroom use.

Another aspect of the use of the film is in our children's cinema. We are entering upon our second season, and we show to weekly audiences of four hundred children suitable silent films. The greatest boon in this cinema is that we can teach the child about the work of the world and right

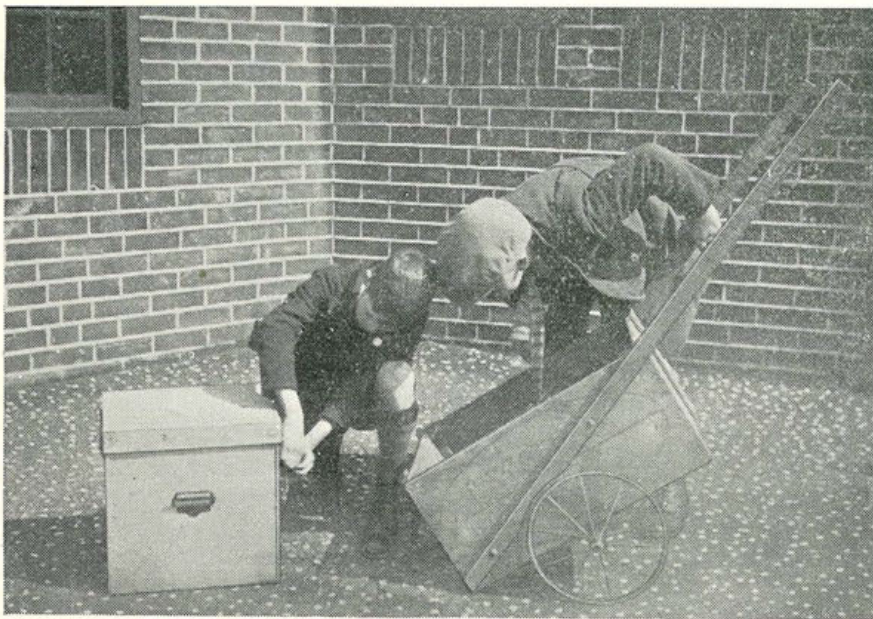
ways of living. What we want is more films. Our experience tells us that we cannot show descriptive films for an hour without boring some of the audience; we want story films of the right type, and surely as there are books for children there can be films.

One of the reasons contributing to the successful running of this cinema is that the child takes a part. The projection is efficient; yet the blinds were painted by scholars, the screen made by the staff, and the teachers operate. Boys see to the arrangement of chairs, transport of films, and in general look on the cinema as their own.

With regard to programmes the scholars have a say in the matter. Films are discussed and there are request programmes. In short, work with the film has proceeded at the same time as attempts to get to know what the child thinks about the matter.

When we exhibited a picture made in the school with the parts acted by the children there was quite a lively criticism by many boys and we were made aware of the child's point of view.

As a teacher I would make a special plea for a cinema in every school—a cinema showing standard size silent or sound films. This cinema could be used as a cinema for the community where films of a type different from those of the ordinary cinema could be shown. I would also beg architects and designers of schools to plan one classroom at least with a view to daylight projection or darkening and ask for a 16 mm. projector for every school.



OUR CINEMA TRANSPORT:
The boys of the William Rhodes' Modern School, Chesterfield, take a practical share in the running of their cinema

FOUR YEARS OF EDUCATIONAL BROADCASTING

By John H. Nicholson

Vice-chairman of the Executive Committee, Central Council for Broadcast Adult Education

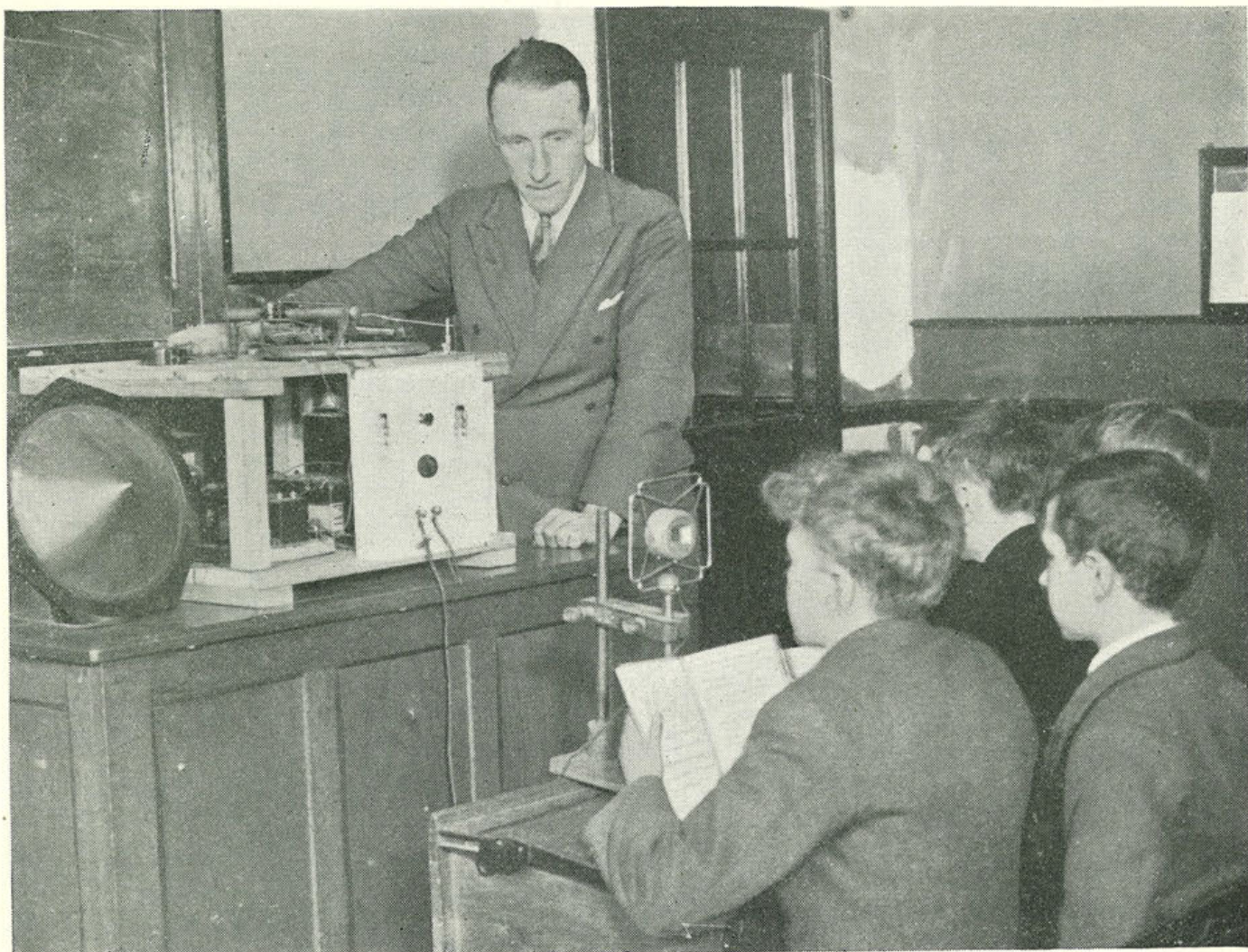
Director of Extramural Studies at the University of Bristol

TWO tasks faced those who set out to organise broadcast adult education. They must work out a speech-form appropriate to the new medium, and within a limited period of five years' experiment they must win the support of the public. The ground had been prepared by the report of a committee over which Sir Henry Hadow presided, published under the title *NEW VENTURES IN BROADCASTING*. A good deal of pioneer work had already been done—the B.B.C. had experimented with a series of "talks" on selected topics, and groups had met in a number of centres, to listen and discuss. From the first it was realised that if broadcast adult education was to succeed close touch must be kept with listeners. This was, and still is, the main difficulty. A beginning was made when the Corporation set up the Central Council for Broadcast Adult Education, consisting of representatives of Education Authorities, and of the main voluntary bodies concerned, with the addition of members who could speak for music and the arts. The Central Council soon set to work to extend this advisory machinery to the provinces: area councils were organised in Yorkshire, Lancashire, the West Midlands and the West of England. In addition, an experiment was conducted in Kent, and a special committee was set up in Scotland.

The first duty of the Central Council is to advise the Corporation on programmes. Broadcasting differs in important ways from public speaking, lecturing, and teaching. Technique must start with a paradox—a broadcaster speaks to a world audience, but the most successful broadcasts are conversational in tone and method. A difficulty arises at once: listeners want to hear experts of established reputation, but experts are generally either public men with a platform manner, or University professors, accustomed to the lecture-room, or writers, scientists, or administrators, who may never have spoken in public. The tutor of an adult class has the experience which is nearest to broadcast conditions—a small informal group with whom he is in intimate contact. The microphone is an acid test—it is merciless to those whose voice does not carry at least something of their personality. There are perhaps a few "natural broadcasters," but nearly all need some kind of preparatory training, and the B.B.C. has gradually built up a technique which saves the time of busy men and women, and makes it very unlikely that their voice or the matter of their talks will fail to "get over"—the requirement that manuscripts have to be submitted is not merely a safeguard against a breach of B.B.C. policy.

The Central Council and its Executive and Programme Committees recommend to the Corporation the subjects on which series of talks are to be broadcast, and the speakers to be invited. The time at the disposal of the Council for talks is limited to half-an-hour a day, and except on one evening a week no talk for which the Council is responsible can be broadcast after 7.30 to 8 o'clock (additional periods are given to languages twice weekly.) Sunday talks must conform to the Corporation's Sunday policy. Talks must find their place in the general broadcast programme, and programme-building is a difficult and complicated business, with so many claims to consider. Many questions call for decision. Should the talks be related to present-day problems, or should they include historical subjects? Should they always be arranged in series? How many talks should be included in a course? Should the different series be related (as in "The Changing World" series for last winter)? Some balance must be kept between the time allotted to different subjects. Are all fields of study suitable for broadcast treatment? Should all the broadcasts be "straight talks," or is a discussion between two experts sometimes better? Should the talks be addressed to the ordinary listener with no special knowledge, or should talks be of differing standards, some for beginners, and some for students of the subject? Most of these problems can only be solved if close touch with listeners can be established. The "Talks Programme" which is now published two or three times each year includes summaries of all series of talks, except those for which a special pamphlet is issued. These talks pamphlets always include a general introduction to the subject, and suggestions for reading, as well as notes on the talks to be broadcast. Most important talks are printed (sometimes in a slightly shortened form) in *THE LISTENER*, the B.B.C.'s weekly review of educational broadcasting.

But the microphone is a one-way road, and it is by no means easy to discover the needs and views of listeners. Group-listening meets this difficulty to some extent. Over a thousand groups met during the session 1931-2. The Central Council holds a Summer School to train those who offer themselves as group-leaders, and national and local conferences of leaders are held at intervals. In the West an attempt has been made to compile a register of listeners, with a view to consulting them on programme questions, but the response has so far been poor. In each region where an area council has been set up, and also in Scotland, an education officer,



CLASSROOM SOUND RECORDING at Altrincham County High School. The experimental apparatus that Mr. Ronald Gow is using in this picture is based on the Cairmor aluminium disc method. Tests have been made in English speech training and in foreign languages and the pupil is able to hear his own voice a few seconds after recording. The same amplifier serves the double purpose of actuating recorder and loud speaker

appointed by the Corporation, acts as Secretary and keeps touch with listeners, and especially with groups. A limited number of sets, purchased in some cases with the generous help of the Carnegie Trust, are available for loan by area councils to groups willing to conduct experiments in listening and discussion but unable to buy their own sets, and the help of educational engineers is available for their maintenance.

Does the public want broadcast adult education? Newspapers which have taken straw ballots sometimes announce that talks rank near the bottom of the list of preferences expressed. This is, of course, no sure guide to what the public wants. Letters written by listeners to the B.B.C. are safer evidence. Correspondence is analysed and gives a valuable

clue to what the interested public thinks of the talks (there is not one public but many!) While much helpful comment is received there is surprisingly little criticism of general policy. That surely is the test. While it is obviously impossible to please everyone, it is remarkable how often criticisms *of the same talk* from opposed points of view answer each other. A new service like educational broadcasting must feel its way: it should be increasingly aware on the one hand of the needs and desires of the listeners it exists to serve, while it should also be assured of a wide enough measure of freedom to make its responsibility for policy real and effective.

FILMS FOR LONDON CHILDREN

SILENT film shows for children have been provided by the Public Amenities Committee of the Battersea Borough Council since the year 1922. This venture was made possible by reason of the fact that the Council possess a very fine hall, seating 1,056, and an operating box built outside the main building, and thereby able to conform in all respects with the regulations of the licensing Authority, the London County Council. The Committee very wisely decided to incorporate consultative members on the Committee, and invited the Borough Consultative Committees of the Head

Teachers to send representatives. These bodies were pleased to do so, and every consideration has been given to the views expressed by them. The London County Council were approached and readily gave permission for the use of the school organisation. In this respect a most efficient scheme was adopted, viz.: the allocation of seats to each school that desired their pupils to attend. At the beginning of the season each school is asked how many seats it desires. When all the replies are received, the seating capacity of the Hall is allocated to the various schools. Postcards are supplied and each week the Head of each Department notifies how many seats are desired, and a postcard is returned stating the number of the seats allocated. Some weeks, of course, a particular school does not desire the full allocation and another desires more. By this method it is easy, therefore, to comply with the requests received, and allot the seating capacity of the Hall without difficulty. Upon the receipt of the postcard notifying the number of seats allocated, the tickets are collected from the Town Hall. This also obviates the waiting of children at the door, a most desirable thing when one bears in mind the climate of our country.

Two performances are held on Thursdays, from September to March each year. The first performance begins at 5.30 p.m. and the second at 8.15 p.m. At each show approximately 9,000 to 10,000 feet of film is shown.

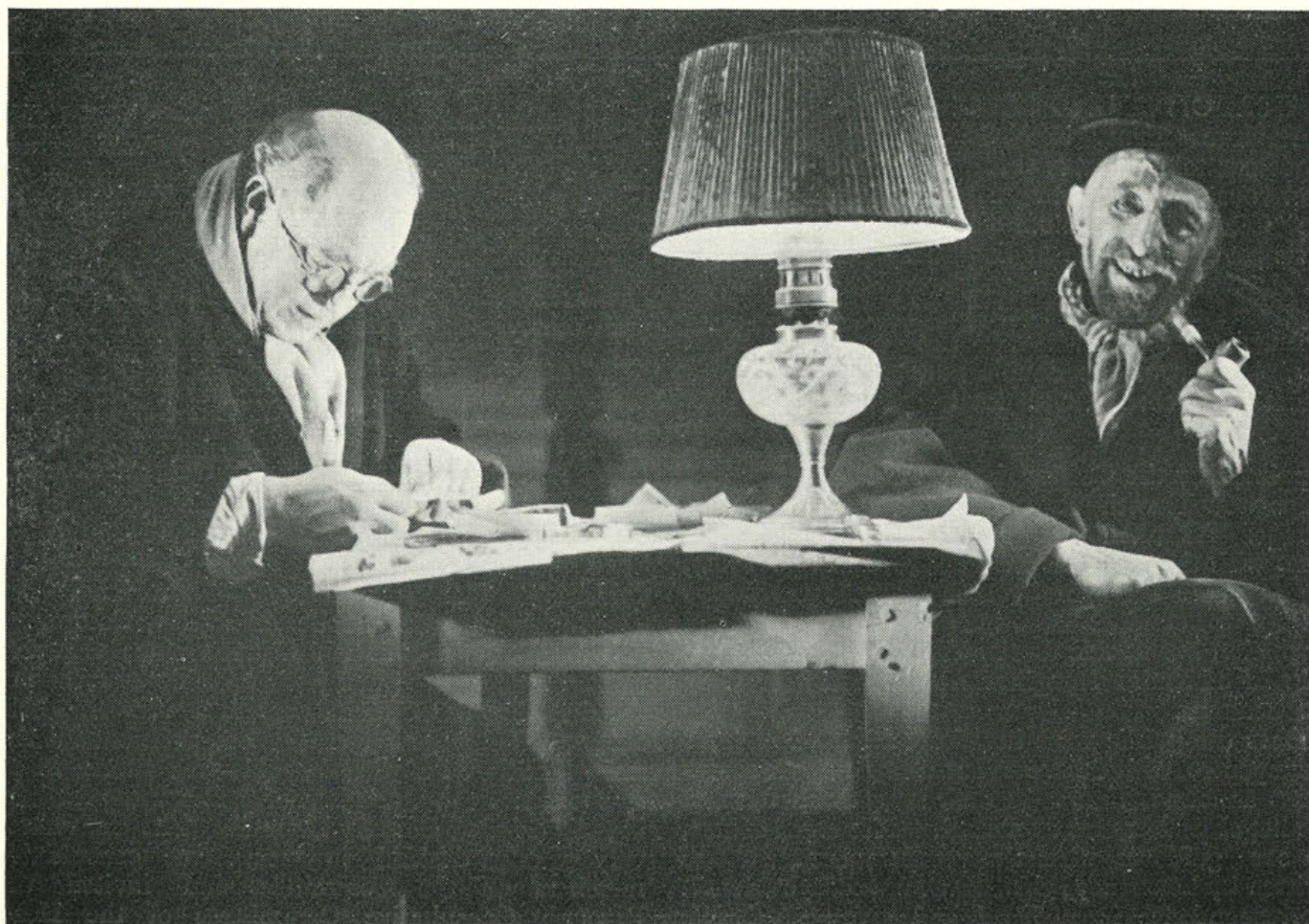
The prices for the first house are 2d. (unreserved) and 4d. (numbered and reserved). At the second house adults are also admitted and the prices for this performance are 3d. and 5d. (unreserved) and 7d. (numbered and reserved). It was a great blow to ventures of this nature that the entertainments tax should include performances for children, where the charges for admission were above 2d. and yet below 7d. The operating box possesses 2 Ross Standard Projectors with Mirror Arc Lamps and the projection is excellent. During the performances suitable music is given from a very fine electro-pneumatic four-manual organ, built by Norman & Beard, Ltd.

In the past, when talkies were not with us, no difficulty was experienced in presenting programmes consisting of topical and interesting films. We were able to intersperse comedy with short educational films; in fact we have shown all the educational films presented by British Instructional Films Ltd. To-day it is a different proposition and as time goes on it seems to get harder to find sufficient material for a children's performance.

It does seem a great pity that some silent films which are really good entertainment and also are of educational value should be kept in the cellars and not be permitted to be on the market, so that the children could derive the benefit. After all, they are all old films which have been shown and which could not be said to compete with talkies.

T.B.

DAVID GOLDER : A new French film with Harry Bauer ; to be shown at the Academy, London, shortly



MUSIC LESSONS BY GRAMOPHONE

By J. T. Bavin

An article on the technique of the gramophone in education which includes an account of some pioneer experiences in this field. Major Bavin was one of the first to recognise the value of the gramophone as an aid to the understanding of music, and his early broadcast music-talks, his lectures, and his summer school of music at Oxford have made his name well-known to music lovers all over the country

THE number of schools in which a gramophone is installed, and used, justifies the assertion that it is now recognised as an aid to teaching, and the assertion is emphasised by the fact that a number of local educational authorities have given it their official sanction as part of the school equipment. Striking testimony to this was given by Mr. T. Wall, the Chief Inspector of the West Ham Education Committee, in the article which he contributed to the Summer number of SIGHT AND SOUND. For music, languages and anything that is dependent upon the sense of hearing, anything that is of a transient nature and therefore demanding concomitant rapidity of ear and brain, the gramophone, because of its reproductive powers is of the greatest assistance. By its means that which otherwise would have been a fleeting experience becomes a permanent impression, because of its possibilities of frequent repetition it enables the hearer to apprehend every element contained in sounds which without its aid might have been but partially perceived.

It will be interesting to trace the growth of this widespread recognition of the value of the gramophone which has developed in the comparatively short time of ten years, the ten years of the nineteen-twenties.

The beginnings probably are to be found in the period of the war when the cheapness and portability of the gramophone secured for it the premier place as a means of enabling the troops to supply themselves with music. It was thus brought to the notice of many who had previously regarded it as a more or less musical toy—if not actually a thing of horror; with the result that interest and an insight into its possibilities were gained. But before this there had been scattered individuals who had discovered its usefulness, poor instrument as it then was, and had made it an aid to their teaching work. My own experience on such lines dates back to the Edison Bell phonograph, a queer old thing with cylindrical shaped records, with which by an accident I first discovered the practical aid of such an instrument to the teacher. My school orchestra was rehearsing Beethoven's "Egmont" Overture, and some of the more difficult passages scared certain players to such an extent that they began to find excuses for not attending orchestra practices that term. In seeking for ways of retaining them I suddenly remembered the old phonograph that was taken each year to the holiday camp, and one of its records was this very overture—extracts only. At the next practice it made its appearance and, bad as it was, it achieved its purpose; it interested the players in the work, they liked the music, heard what might result from

their own efforts, and saw that it was worth the little extra practice for which the performance would call. From that time the gramophone regularly took its place as an aid to the musical work of the school. For a course of lessons on the Beethoven Symphonies, as only a few of them were to be found on records, a pianola was also used, but it was not found so interesting owing to the loss of orchestral colouring.

The general acceptance of the gramophone by our educational authorities is covered by a period of approximately ten years. Experiences in demonstrating its use during that time in some 4,000 schools, of all kinds, as well as to groups of adults interested in educational work, together with the evidence that has accumulated as a result of the work, lead to the conviction that there has been a steady and wide-spread increase of recognition of the possibilities of the instrument as an aid to education.

But the recognition has been wider than the corresponding realisation of the necessity for studying how to make the best use of this aid. For in this, as in all other things, method is necessary—a technique—if we are to extract the fullest possible help from its employment. Methods can only be formulated as a result of frequent experiences.

The fundamental advantages of the instrument as an aid are its capabilities for catching the interest, for maintaining it, its capacity for frequent repetition and its use in quickening the ear. Every teacher knows that his first task is, or should be, to arouse interest in his subject, and his next and still more difficult, to sustain it. It is for this reason that I have called attention to the fundamental advantage of the instrument, for obviously any method of its use that is to be successful must achieve these ends. It is not enough for the musically-uneducated listener to hear the reproduction of a musical composition of acknowledged worth. He wants to know why it has been placed in such a class, what makes it worthy, what there is in it that gives it its merit. To emphasise its beauty or high standard may arouse his admiration and may possibly suffice for this one composition but it will not add to his power of thinking for himself: it will lead nowhere. Can standards be set up which he can apply to other compositions, and by which he can judge these things for himself? Is this always possible in the case of such an æthereal thing as music? But it is possible to help him to find out and to understand what there is in music generally, and it is when understanding comes in that real appreciation begins. Understanding calls for an effort. Effort comes the more easily when

interest is aroused. And so the first step in our method is to arouse interest—perhaps by a comparison of the tones of voices or instruments, a tune or a rhythm that catches the attention and that will be heard again, possibly in a varied form. If attention is being given to instrumental voices (tones) the eye should be called to the aid of the ear and a drawing of the particular instrument in question should be shown so that there may be a perception of its look as well of its sound.

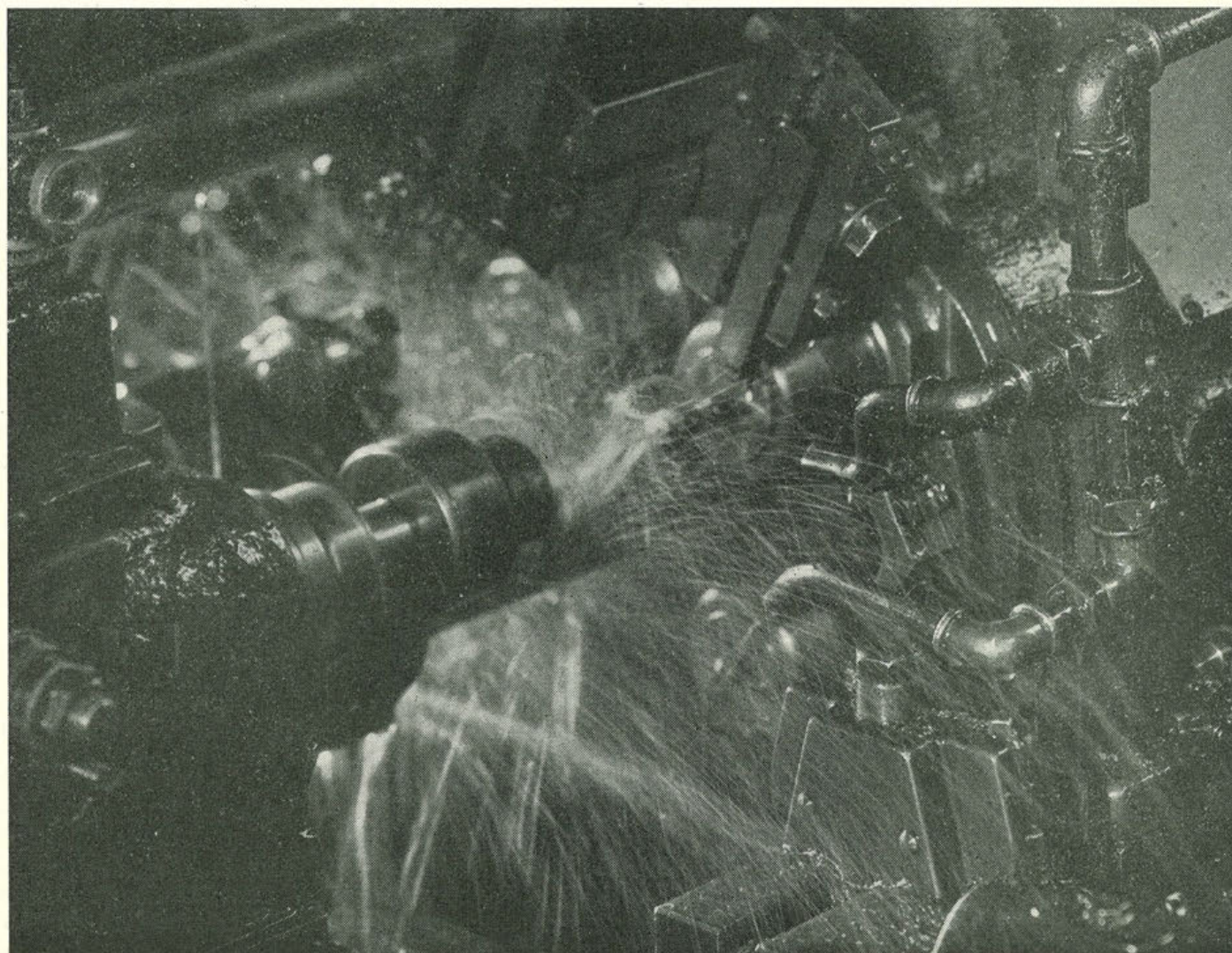
As an example we will take a piece of music in which, say, the French horn has a prominent part—the Nocturne in Mendelssohn's music to *A MIDSUMMER NIGHT'S DREAM*. We hear the opening strain call attention to the tone, the voice of the instrument playing it—"listen to it again; does it sound like a violin—a trumpet? No, it is an instrument like this picture—a French horn. Notice its shape: the big bell, the conical tube, unlike the tube of the trumpet or trombone (pictures); listen to it again, and as we play right through the music notice if it stops playing—will it begin again? Listen and find out. Now let us hear the music once more; don't bother about the French horn, but just listen to the music. That is part of the music that Mendelssohn wrote for Shakespeare's play *A MIDSUMMER NIGHT'S DREAM*

(it may be necessary to epitomise the story of the play); does it sound as though it belonged to an exciting or a peaceful part of the story? That is why it is called a Nocturne—night music, sleepy."

With such a method interest has been sustained throughout; listening for the entries of the instrument encouraged concentration; by playing only the chief tune to begin with and securing a point of interest in it there is the probability of an air of expectation when we decide to hear the whole; there is certainly a feeling of familiarity with parts of it; the frequent repetitions are saved from monotony by new points of interest, new discoveries. The hearing "once more; don't bother about the French horn" is important: the music itself is our real goal, the French horn was only an incident of interest on the way. We may be assured that once it has been noticed its voice will be apprehended; there will be a mental impression even though no thought be given to it.

The above is all very elementary. I have emphasised it because of my conviction that the foundation of any successful method of using the gramophone is the realisation of its advantages as an aid in arousing interest and inducing a habit of concentration. More advanced work is built on this and will be dealt with in another article.

THE VOICE OF THE WORLD (The Gramophone Company's factory at Hayes): New Era Film



EDUCATIONAL GRAMOPHONE RECORDS

By T. L. MacDonald

A survey of the educational field of the gramophone and some of the outstanding educational records forms the second article of Mr. MacDonald's series

THE first article of this series was as vague as prefaces usually are; it is time to get down to shellac. It should be one of the aims of SIGHT AND SOUND to provide working lists of educational records; while each of the fields outlined below will doubtless receive fuller attention as space permits, the following survey will suggest the wide scope of recorded music in education.

For Small Children

The introduction of very young children to music is a field whose importance could scarcely be overstressed; its proper representation came late in gramophone developments, but the series of records issued by H.M.V. for Mrs. J. Murray McBain's Playways method goes a long way to fill the gap—H.M.V. B 2805-9 and B 3150, and the later excellent series for rhythmic training, B 3235-40. There have been numerous issues of nursery records, by no means all educationally satisfactory; and of course most of the A. A. Milne "Hums" from the "Very Young" series will be found in the catalogues; one record which calls for special mention is Annette Blackwell's TRADITIONAL NURSERY RHYMES, Col. DB452, which is also issued under Mrs. McBain's auspices. Both H.M.V. and Columbia have records suitable for school marches, some of the latter company specially intended for the purpose. A number of additional records suitable for young children appear in the American catalogues, especially that of the Victor (American H.M.V.) Company.

Instruments of the Orchestra

Records of the individual instruments of the orchestra are manufactured by H.M.V. (C1311-2) and Col. 9421-2; the latter records are specially arranged for the comparison of the various instruments; the H.M.V. records illustrate each instrument in characteristic phrases. As these phrases are from important works which have been recorded, the records may be followed up into the whole field of music. H.M.V. also issue a very useful series of large charts of the instruments. Of records for use in training school orchestras, H.M.V. B3514-5 (string orchestra) should be noted.

Folk Dancing

Another application of the school gramophone is to folk dancing. The series of these issued by the principal companies are too long for the present article; and teachers interested will naturally consult the English Folk Dance Society, Cecil Sharp House, 8, Regent's Park Road, N.W.1. The Society is now having records specially manufactured, and the first two of these have reached me from their address. RO 51 contains THE WEDDING and KEMP'S JIGG, RO 52, GREEN SLEEVES AND YELLOW LACE,

and THE WAY TO NORWICH, all in Arnold Foster's arrangements, and played by a sextet including Elsie Avril, whose solo records of morris dances are also notable (H.M.V. B3671-6 and Col. DB 226-7). The enterprise of the Folk Dance Society deserves to be widely known; the tunes are charming even to one as ignorant of the dances as I certainly am; and the Columbia recording is as smooth and steady as can be desired. The dances are published with instructions by Messrs. Novello. There are also special records for Maypole Dancing (H.M.V. B3356-7). The revival of Scottish country dances has made great progress in the past ten years: Col. DB293-5 were recorded under the supervision of Miss Milligan, the organiser of the Scottish Country Dance Society; twenty-four records of these dances exactly as published for the Society have been issued on Beltona 6085-6117, and more recently the same company has issued the first book of Border Dances of the Scottish Country Dance Club of London (1730-5). There are also various records of Highland and Irish dances; the Decca Ulster supplement should be consulted; and H.M.V. 2707-11 contain Scandinavian dances arranged for the Ling Association.

Musical Appreciation

If we pass to musical appreciation proper, we must give pride of place to the Columbia HISTORY OF MUSIC BY EAR AND EYE. Mr. Percy Scholes has done many things for the extension of musical culture, but never anything so big as this six-volume work, of which three volumes have already appeared. The material in the first volume in particular is quite unique (plaintong, early instrumental music, the madrigal, and so on); and the later volumes continue to offer a large proportion of material which has not been recorded elsewhere; the little books which accompany each series supply what is needed to make proper use of the records. The Columbia History will be noticed more fully in these pages in the near future. The Parlophone series entitled TWO THOUSAND YEARS OF MUSIC (R1016-27), originally issued by the German Odeon Company may be described as a companion to the Columbia History which it scarcely ever duplicates. For one thing it commences with examples of ancient Greek and Jewish music. Unique specimens of the music of the Troubadors and Minnesingers and, later, of the Dutch, German, and Italian schools are included. The series does not come below 1750.

Selection of records for musical appreciation in general is not a question to be answered in part of one article; a passing reference to the recorded talks on Listening to Music by Dr. Percy Buck, on the Progress of Music by Dr. George Dyson,

and on various composers, issued by Columbia for the International Educational Society must suffice for the present; and teachers should not forget that the foreign lists of the principal companies contain much music illustrative of national schools which may be put to good use. The issues of the National Gramophonic Society, 10a, Soho Square, W.1., should be consulted for advanced study.

Languages

The application of the gramophone to language study has made progress recently, and while there are several courses available for French and German these for the most part serve different purposes. The Findlay-Gregg system, issued by Columbia (French, L2323-8; German, LX138-43) is especially adapted for the classroom. The courses issued by H.M.V. are much more extensive and based on more formal text-books (French, C1353-67; German, C2108-11, 2120-1, 2154-71); but a new series of recorded talks in German descriptive of pictures is intended for beginners (B4033-8). H.M.V. also issue groups of three records of TALES AND DIALOGUES in French, German, Italian, and Spanish, records of speech sounds in these languages, and of useful phrases spoken in the same languages and also Swedish; the English of these phrases is also spoken in the record. Other pairings of languages have been issued abroad.

The courses of the Linguaphone Institute are based on a series of pictures, which is the same throughout the standard courses in a wide range of languages. For the great majority of the languages the Institute has no rival, and it should be noted that the courses are probably the cheapest method of learning such languages as Polish and Persian—and outside of a few centres the only method. The recording, which could not be fairly described as quite satisfactory in some of the earlier courses, has been greatly improved and is exceedingly clear in all the courses now issued: as a result the records are already in use in several thousand schools. My impression is that the most elementary stages are not yet quite sufficiently fully treated, though the graduated speeds make the early records very easy to follow. The aim of the Institute is to provide a series of courses for all purposes: there are now literary and travel courses in the principal European languages; the Institute produces the well-known short "brush-up" courses, and series of songs in English, French, Irish, and, probably within a few months, German are issued. These song records are of considerable educational interest since they are selected for enunciation and clarity rather than for exceptional artistic excellence. The individual records of the institute will be discussed in a later article; but a mention of the recent experiment of Latin and Greek records on the Perse School method will, I hope, draw the attention of classical masters to a promising development.

English Diction

One important field which I have not touched on is that of English diction. The Linguaphone Institute has done much here also; their Shakespearian

records by John Gielgud, the two records of Bernard Shaw on SPOKEN ENGLISH AND BROKEN ENGLISH and the new series arranged by Professor Lloyd James have all useful applications. The International Education Society has issued a series of passages of standard English, and readings from their own works by authors such as John Drinkwater; I am informed that the Society may make interesting additions in the near future. In the catalogues of the general recording companies there is also a considerable number of excellent transcriptions of English diction. This, however is a field which has not been sufficiently fully explored, and the problem of accepted standards of English has not been tackled with any consistent policy. It is equally important that dialects should be preserved by the gramophone: such records appear in the general catalogue of the Victor company, and similar issues might be made available to British students and for teachers concerned with speech defects.

Of many other educational applications of the gramophone notice must be held over: and it is very clear that collections of records will be increasingly important constituents of the libraries of educational institutions of all types, since the research and pedagogic possibilities of the gramophone are as much cumulative as those of a collection of books.

Record Societies

The progress of the record society movement has been very rapid. The first album of the Wolf, Beethoven, and Haydn societies have been issued: and it is understood that the success of the Sibelius society is ensured. A proposal for the recording by the Columbia process of the forty-eight Preludes and Fugues as originally written for the clavichord has been made, and particulars are in the hands of the principal dealers or may be had from Columbia; the Society has secured the services of Arnold Dolmetsch.

Recording the Pianoforte

The piano has shared with the organ the reputation for gramophonic intractability; with rare exceptions, mostly Polydor recordings, piano records, although satisfying to the gramophonist's ear in many respects, could not claim to be genuine reproductions of piano tone. Teachers who may have been disappointed by their experience should hear the more recent Columbia piano records; I have no doubt that they represent a genuine advance and while the music so far recorded has not yet been very exciting from a teacher's point of view, the new piano recording should be watched.

The pages of SIGHT AND SOUND should be open for the reporting of gramophonic experiments in adult and school education; I shall be pleased to receive comments on actual experience and problems solved or unsolved.

An important set of records of artistes of the Comédie Française in selections from standard French drama arrived from H.M.V. too late for review in this issue: other reviews are also held over.

LECTURING WITH AN EPIDIASCOPE

by L. Dudley Stamp

Reader in Economic Geography at the London School of Economics

THE claims of the lantern as a well nigh indispensable aid to learning have long been recognised, and the claims of the cinematograph are now receiving wide attention. It is therefore not a little remarkable that the use of that very simple instrument—the episcope—should have been comparatively neglected.

Essentially the episcope is an instrument which, by a combination of electric light and mirrors, throws on to a screen the magnified image of any ordinary opaque object, such for example as a page of a printed book, a map, a photograph, or a small solid object. The syllable “dia” indicates that the epidiascope, combines with this the transmission of light *through* an ordinary lantern slide, and hence an epidiascope is really a combination of an episcope and a lantern. In order to remove misconceptions it may be useful to examine the reality, or otherwise, of difficulties expressed by teachers who have considered the use of the episcope or epidiascope.

Efficiency

It requires a much more powerful light thrown on to the surface of a book or paper for an effective image to be conveyed enlarged to a screen than it does to project an image through an ordinary lantern. Some of the older epidiascopes were perhaps unsatisfactory for this reason, but with the advance in the technique of manufacture of powerful electric light bulbs of 500 and 1,000 candle power no difficulty may be felt in the efficiency of the modern instrument.

Cost

If one considers the real or ultimate cost, then the episcope is infinitely cheaper than an ordinary lantern. Unfortunately the comparison is too often made by what may be called prime cost. The prime cost of a good modern epidiascope is, let us say, between £30 and £50, though a very efficient episcope can be obtained at about 15 guineas, complete with screen. This may sound a considerable sum of money; but an episcope requires no feeding with slides, and even if one takes a low average cost of lantern slides—say 2/- each—then an ordinary set of about 50 costs £5; so that the price of an epidiascope is only equivalent to that of about five sets of slides. It is here that the real economy comes in. Whereas the teacher who uses the lantern must have new slides in great variety for efficient teaching, the teacher using an episcope has at command an immense wealth of material without any preparation, practically any illustration or printed material being usable if it is of suitable size.

Installation

In any modern building where there is an ordinary supply of electricity the plugs can be strengthened

as a rule to take the epidiascope, and of course there is in many modern buildings a power supply laid on.

There is in essentials no difference at all between the use in lecturing or teaching of a lantern and of an episcope. Instead of slipping a lantern slide into the holder one slips a map or the page of a book into the holder, arranges it in position and there is the enlarged image on the screen. The epidiascope is really much more suited for the classroom than the lantern though perhaps less suited, correspondingly, for the large lecture hall; for the maximum of efficiency is obtained by the throw of a comparatively small distance—15 or 20 feet or less. With certain episcope an ingenious transparent screen is available which is particularly useful for the teacher who has a good size class room. Here the episcope is kept on a platform *behind* the screen at a distance of six or eight feet and the teacher only has this very short distance to walk between placing the book or the map in position and talking about the image which is thrown on the screen. Moreover this system is excellent because it is possible to do the work in an undarkened classroom or a classroom which is only slightly darkened at that end of the room where the episcope is actually being operated. I have myself given lectures by this method without pulling any of the blinds on the windows in the main part of the lecture room, so that the audience can make notes or write in exercise books without any difficulty.

The teacher today is notoriously hard-worked and however willing one may be to sacrifice time and energy in making or obtaining suitable lantern slides, it is a relief to be able to use, almost without previous thought, illustrations in books, newspapers, postcards and material of every sort. For more advanced work it is of immense advantage to be able to throw on a screen a page of statistics or a complicated diagram. In the case of maps which may be too large to show as a whole, it is possible in most instruments to move them about in the holder and to show portions at a time. The writer adopts this method with ordnance maps.

There are other uses of the episcope or of the epidiascope which might be mentioned, but there is at least one in particular. Many of us like to make our own large wall maps or diagrams. There is nothing simpler than to put the original diagram under the episcope and throw the image on to a clean sheet of white paper, pinned on the wall, and to trace off the lines. It is then a matter of minutes rather than hours to complete a map which previously would have taken many hours in the enlarging.

Messrs. Cinema Traders, Ltd., 26, Church Street, W.1. supply an epidiascope at £39 10 0 and a cheaper model at £27 15 0.

Messrs. Sands Hunter & Co. have a standard model epidiascope at £39 12 6 and an episcope at £16 10 0.

Messrs. Evans Bros. supply an episcope for £15 15 0 and an episcope with lantern for 5 guineas or 8 guineas extra.

THE LANTERN SLIDE IN TEACHING—2

MAKING A COLLECTION OF GEOLOGICAL SLIDES

by W. T. Gordon

Professor of Geology at King's College, London University

GEOLGY is essentially an out-door study, and the difficulty of establishing its principles in the minds of the school boy or girl is correspondingly great as the school room is remote from an accessible region of rural scenery. While the fundamental ideas in most nature studies can be established by the use of easily handled specimens, the materials of geological studies are, in general, quite beyond treatment in the classroom in this fashion. The almost universal introduction of the projecting lantern into schools has obviated much of the difficulty. The only question is one of material and its selection.

My earliest recollections of an attempt by an enterprising master to inculcate some idea of the physical wonders of the world to his class was a Peep-show. This peripatetic picture gallery was drawn by a horse into the playground of a country school, and each of us looked into a series of small apertures in turn. The price, I remember, was one half-penny, and there were perhaps twenty scenes for our inspection. Further lessons in class based on what we had viewed depended largely on the memory of the individual pupil—there could be no repetition of the views.

To-day conditions are quite altered and collections of lantern views of striking geological phenomena can be purchased either from the Geological Survey or from the British Association for the Advancement of Science. But a lesson supplemented by a series of lantern plates made from local scenes, or from places actually visited by the teacher, is infinitely more inspiring than one deriving its illustrations from a catalogue, be they never so perfect. Far better, then, to make up a collection of local character, supplemented by selected views from other places.

For this purpose a simple camera with reasonable bellows extension is required. There is no necessity for any elaborate apparatus. A useful size is $\frac{1}{4}$ plate, but any camera giving a picture of $2\frac{1}{2}$ to 3 inches across will be adequate. For the best results panchromatic plates or film must be used, and a red gelatine or glass filter in front of the lens of the camera is advisable, though not essential. The difference between the same view taken on an ordinary and on a panchromatic plate or film is so amazing that one will usually take the little extra trouble involved in using the latter.

With such apparatus an excellent collection of slides may be made; but there are two main avenues along which to work. For the study of physical geology and geomorphology the object is to obtain large scale views, for mineralogical and palæontological studies more minute detail is required. In these minute

studies the camera must be re-inforced by a microscope, but all the important principles of geology can be illustrated without any more elaborate apparatus than a camera.

There are few places in this country where no features of geological interest can be found. Valleys, hills, streams, railway cuttings, roadside exposures of rocks or quarries exist within comparatively short distances of most places, and photographs of these will form the basis of collections illustrating topography—as water erosion, folding of strata, joints, dip and strike of beds. A visit to the sea-side will increase the collection in so far as the effects of marine erosion, landslips, beach deposits, surface markings on beds, ripple marks and worm burrows and so on are concerned. A succession of ridges and intervening valleys, or the interruption of such a succession, may show the result of simple folds or the effects of faults crossing the strata or unconformities in the sequence. Even a modest mill-dam may form the nucleus for a study of waterfalls and rapids. Whenever possible, however, there should be some object to give an idea of the scale. It may be a tree trunk in the foreground or a building in the background. If this be impossible some note of the dimensions should be made on the slide. Having established the idea from local occurrences, the theme may be extended by the introduction of views of similar phenomena, perhaps on a far grander scale, from other places.

Thus a series of slides illustrating the principles of physical geology can be built up round local examples.

In regard to rock and mineral differentiation collections of actual specimens may be brought into the classroom, but demonstration of the essential features may be more easily shown to a large class by means of lantern views. The technique of preparation is not quite so simple, though many examples lend themselves readily to ordinary photographic procedure. Broken surfaces of rock present some difficulties, but a *wet* surface always shows the detail better than a dry one. Do not try to photograph a *varnished* irregular surface. It may look all right, but the reflections of light from the varnish will quite spoil the effect. Rather pour water on the surface, and stand ready until the wet surface just does not reflect any light, *then* make the exposure and in general all will be well.

A most instructive series of lantern plates of rock textures may be made in this way and, as before, begin with the local stones whatever they may be. Sandstones, shales, limestones, igneous rocks like granite, or metamorphic rocks like slate all afford

plenty of scope for photographic reproduction as lantern plates. Here too tinting the plates may give instructive results. In such cases the original lantern plate must be printed rather lighter than usual and the colour added as requisite. A slate with iron pyrite crystals becomes a most striking object on the screen when the pyrite is tinted yellow; so also a garnet-bearing rock when the constituent minerals can be picked out in their natural colours.

Nor does this terminate the possibilities of the collection. Mineral specimens showing their colours and their crystal forms may be reproduced; agate, onyx, bloodstone and opal may be shown in all the glory of their colours, if a little time and patience be exercised. Again begin with something local—the War Memorial may be in polished granite and may yield its lesson to the beginner in geology, as it does to the beginner in loyalty and self-sacrifice.

Lastly, the collection should contain something to illustrate the organic life of past times. The local quarries may yield an abundant series of fossils or only rarely a specimen or two. The local nucleus, however, is seldom absent, and round it may be woven the story of organic life on the globe, supplemented by contributions from other areas.

The addition of a microscope to the equipment opens up new avenues, but even without that further adjunct a collection of several hundred instructive slides may easily be made. An afternoon in a stone quarry or a clay pit will often yield a dozen instructive geological photographs worthy of reproduction as lantern plates for exhibition as desired.

MORE CHILDREN'S FILM MATINEES

Owing to the great success of the first series of children's Saturday morning matinees under the auspices of British Instructional Films Limited, a new series has been organised on a much wider scale. In the London area there are three more theatres, (at Croydon, Hammersmith and Wandsworth) at which these matinees are being held, and in the provinces Derby, Wallasey, Sheffield, Cardiff, Clifton and Bristol (two theatres) are included in the scheme, besides Birmingham, where the experiment has already been successfully tried. The programmes last about two hours, and are designed to give the children in that time the greatest possible amount of entertainment of the kind they like best. Besides the main picture there is a comedy, news events and such "interest" shorts as the *SECRETS OF NATURE* films. The main features for this season include: *STAMPEDE*, *RANGO*, *DASSAN*, and *NURI THE ELEPHANT*; pioneer pictures like *TURKSIB* and *WITH BYRD AT THE SOUTH POLE*; adventure: *THE TEXAN*, *THE MAN IN THE IRON MASK*, and an edited edition of *WINDJAMMER*, and comedies like *Buster Keaton's STEAMBOAT BILL*. The price of admission is usually 2d., and the organisers have had the heartiest co-operation of the theatre managers as well as of the renters in arranging the programmes.

FILM PERIODICALS

There has recently been a noticeable and welcome increase in the number of periodicals catering for the serious minded filmgoer, whose only difficulty will now be to pick and choose among so many excellent reviews, each touching matters which will interest him. *Close Up* (price 3s. 6d., edited by Robert Herring) is probably now the oldest existing review devoted to the art of films. It was founded in 1927, and reorganised on a quarterly basis in 1930. Its scope is international, issues having been devoted to consideration of the film in Japan, the film in Russia, the negro film, and so forth: a feature of *Close Up* is the excellence and number of its photographs.

A newcomer in the field is the *Cinema Quarterly* (price 2s., 24, N.W. Thistle Street Lane, Edinburgh) edited by Norman Wilson. This is to be the official organ of the newly founded Federation of Film Societies, and concentrates upon giving complete reviews of new films, with articles on the technique and art of film production. To the first issue contribute Professor Herbert Read on "Towards a Film Aesthetic," John Grierson on "Flaherty and the Man of Aran," Paul Rotha on "Emerging Sense in Film Production" and Erik Chisholm on "Work or Play—A Plan for Amateur Film Makers," and many others, including Ivor Montagu and Leontine Sagan. Finally, we should recommend those who are interested in the educational side of films to see each month the *International Review of Educational Cinematography*, published by the League of Nations.

NEW CLASSROOM FILMS

Co-operation with Teachers

An important addition to the Empire Marketing Board's Film Library (catalogue 1932, second edition) is a section of "Classroom Films," available in 35 mm., 16 mm., and 9.5 mm. sizes, which have been specially prepared to meet the requirements of an education committee, and are intended not for general circulation but for the use of teachers in the classroom. There are about thirty films in this section (all silent), and the time of showing averages from five to ten minutes. They include: *LONDON*, the distribution of imports from the docks, through the wholesale markets, to the retail stores and railway centres; a classroom version of *DRIFTERS*; *PLANTS AND ALTITUDES* (showing vegetation at various altitudes all over the world), and a lesson on *WATER POWER*. The Empire Marketing Board loans these films free for approved displays at which no charge is made for admission.

SURFACE TENSION, the 16 mm. British Instructional film which was so enthusiastically received at the York meeting of the British Association, represents an important step forward in the use of the cinema in education. For the making of this film specialist teachers in this particular subject were consulted and the result, in the opinion of the meeting, was a film whose teaching value could not be denied.

Sixteen or seventeen experiments in the surface tension of liquids were shown on the screen, most of them of a kind which could not be satisfactorily demonstrated to any number of students in a laboratory; and a very carefully considered commentary, post synchronised, drew attention to the important points of each experiment. This film was shown by the new Western Electric 16 mm. sound projector. It is the first of a series of specialist educational sound films to be produced on the same lines.

LETTERS TO THE EDITOR

The Editorial Board welcomes correspondence for this page on matters within the scope of SIGHT AND SOUND. Letters should be addressed to 39, Bedford Square, London, W.C.1.

Sound or Silent Film ?

Dear Sir,

In your last issue, Vol. 1—No. 2, Mr. H. D. Waley's interesting article on *THE SCREEN AS A MECHANICAL BLACKBOARD* raises one or two points to which you will perhaps allow me to refer. The conclusion reached by the committee which organised the Middlesex Experiment was that "the sound film is a more potent instrument educationally" than the silent film. When this report was written, and even when my article appeared in the first issue of *SIGHT AND SOUND* (from which Mr. Waley quotes), it was not safe to assume that the satisfactory production of sound films for educational purposes could be achieved for much less than £1 per foot. Since that time, however, there have been many important developments, not the least of them being the perfection of the 16 m.m. sound on disc reproducer and the advances in disc-recording technique which have been accompanied by reductions in cost. It is always unsafe to estimate production costs in advance as so much depends upon the subject and its treatment, but it is quite safe to say that recent developments in the recording and reproduction of sound on disc have brought sound films definitely within the scope of the schools from the economic standpoint.

Mr. Waley says in effect: "There is only a given sum available for production. The number of silent films that can be made for that money is four times greater than the number of sound films. Therefore, let us be content with silent films."

Such an argument appears to me to be based on a fallacy—namely, that you can make up in quantity what you lack in quality. Would Mr. Waley argue that in requisitioning school text books we should be guided by the number that a given sum will purchase? Would he not rather select those which were best suited to his courses of study and which were good in technical quality and scholarship? A dozen books of this sort would be infinitely preferable to scores of an inferior type.

I grant that in educational films the question of superiority depends upon the criteria established for their judgment. Personally, I have always regarded the film as much more than a mere visual aid—the "mechanical blackboard" of Mr. Waley's article. Strips of animated pictures showing processes or events may be useful material for schools. I have tried to express the view that the film accompanied by sound is the ideal medium for bringing within the pupil's own personal experience, in realistic form, the multifarious manifestations of life revealed by a "world at work." For this purpose every technical and artistic device must be employed to establish the illusion of reality upon which the screen depends for its ultimate success. Effort and expenditure on the scale which will be necessary for

this appear justified because of the vital contribution which sound films of this kind can make to the process of education. The "mechanical blackboard" conception fails to take advantage of this paramount consideration.

May I refer to Mr. Waley's assertion that sound projection apparatus is far from reaching the ideal of simplicity in handling which will make it possible for all teachers to operate it? I would undertake to teach anybody, man or woman, gifted with average commonsense to operate a sub-standard equipment successfully in a few hours. I do not say that the scientific principles underlying recording and reproduction can be fully mastered in that time, but the mechanical processes of handling can be learned and correct procedure can be acquired. More than this teachers will not need, because a system of periodical inspection and service will have to be adopted eventually, as is at present the case in regard to wireless receiving sets or even vacuum cleaners!

After so much disagreement, I am glad to conclude on a note of agreement. I cordially endorse Mr. Waley's advocacy of further experiments with synchronously and post-synchronously recorded sound films for purposes of comparison, but I cannot understand his statement that it may be found that "the film is here trespassing on the legitimate territory of the gramophone and wireless." In this new field, there are no "staked" territories. Success will come deservedly to those mechanical aids which can prove out their utility and demonstrate conclusively the value of their contribution to the educative process.—Yours, etc., F. H. HOARE,

Director of Educational Research,
Western Electric Company Ltd.

The Institute of Amateur Cinematographers of the British Empire

7, Red Lion Square, W.C.1.

Sir,—I am requested by the Council of the Institute of Amateur Cinematographers to inform you that Norman Jenkins, Esq., F.I.C.A., has been officially appointed Club Liaison Officer. He will represent and watch over their interests and do all possible to further the club movement.

The duties attached to this office are so exacting that they require all Mr. Jenkins' energies in this connection, and he has, therefore, been reluctantly compelled to sever his association with any club or society and devote his time to the I.A.C.

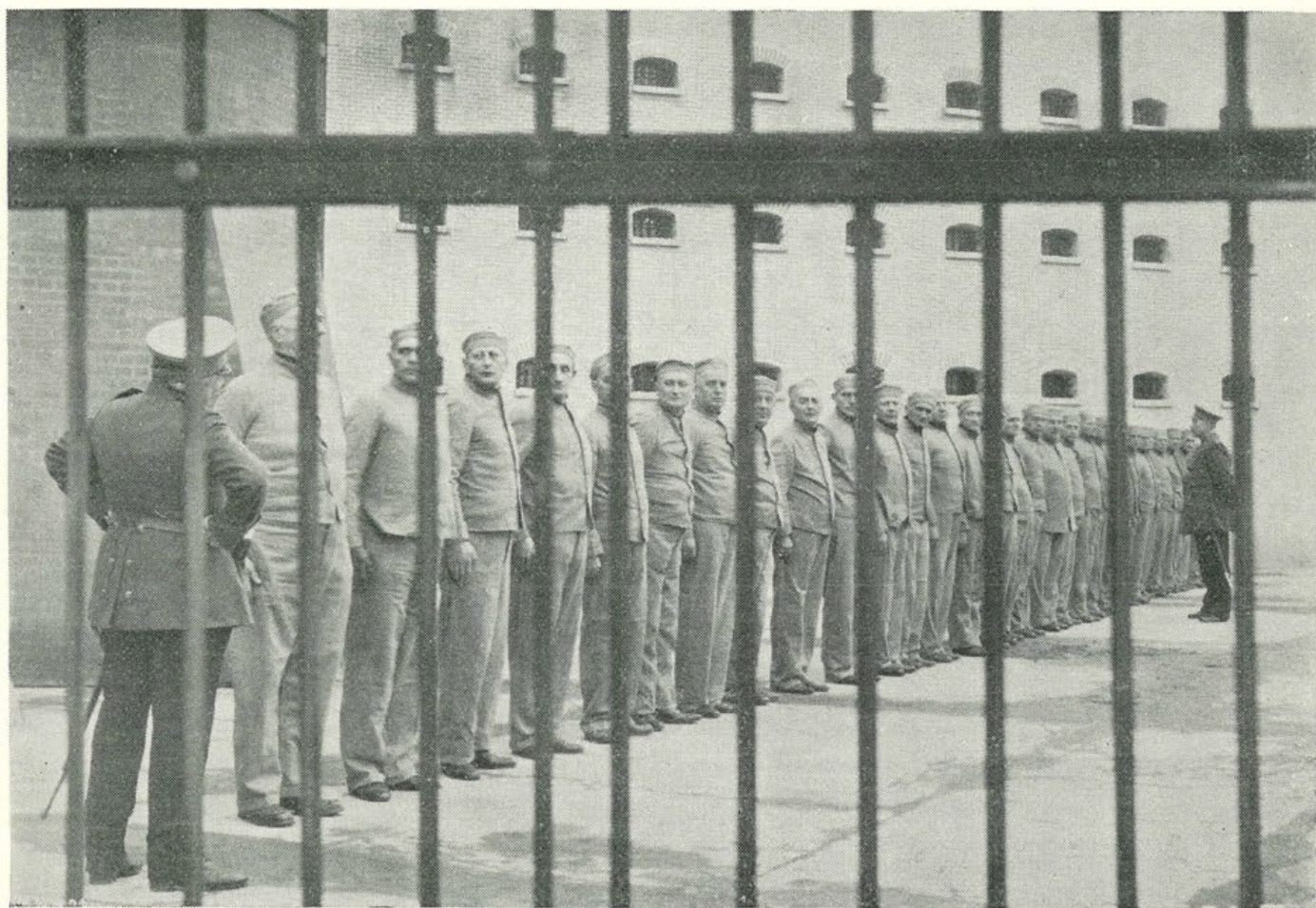
It is the desire of the Council that Club Secretaries send full particulars of their societies and details such as date of inception, committee and officers, prominent people connected thereto, number of members, studio accommodation, meeting nights, as also films produced, and films in production.

Will Greater London Societies please note that the Liaison Officer is desirous of fixing dates for a short talk on the Institute of Amateur Cinematographers, and to assist societies contemplating affiliation?—Yours faithfully,

W. E. Chadwick, Hon. Gen. Secretary.

FILMS TO SEE

By C. A. Lejeune



DER HAUPTMANN VON KOPENICK (International Distributors). Military training in the prison yard

JACK'S THE BOY (W. & F.)—The first really indigenous British screen comedy since the days of the old Betty Balfour films. It is too long; the sequences are often left unfinished; but it is funny, it is native, it is Hulbert and Courtneidge at their best—and you can take the whole family and enjoy it.

DER HAUPTMANN VON KOPENICK (International Distributors)—This is something really new in the cinema—a genuine, dry, keen-witted German comedy. The old story of the famous military hoax comes out grandly from its new film treatment; acting and direction are first-rate. Dialogue is in German with superimposed English titles; the laughs get better and better as they go along. This is a film for adult intelligences; it won't hurt the others, but it may bore them.

THE MELODY OF LIFE (Radio)—A frankly sentimental story of a young Jewish doctor, who keeps faith with the New York ghetto in which he was born—a sort of "Magnolia Street" of the screen. This film may not add much to the sum of human knowledge, but it does stimulate a certain sense of social service in the multitude by making us laugh, and cry, and think a bit about other people's problems. The acting is sound right through, and the direction

is a shrewd bit of emotional journalism. Probably the operating scenes are responsible for its "A" Certificate; there is nothing in the story itself that could hurt the youngsters.

THE DOOMED BATTALION (Universal)—A story of the war in the mountains on the Austro-Italian front, made originally in Germany and re-made, with English dialogue, in Hollywood. For such a hybrid entertainment, it has been remarkably well done; for once Hollywood has been reticent, and the original drama still stands. Luis Trenker does his usual fine ski-ing stuff and the snow mountains invite the camera to its best work. This is the sort of adventure story that boys love, for warfare of this kind is too remote for them to grasp its realities.

LOVE ON WHEELS (W. & F.)—A fantastic comedy with music, that turns Selfridge's stores upside down and races round metro-land in a Green Line bus. The gags don't all come off; it is a good entertainment that might have been even better. But the ideas are all there, even if they have not quite materialised; it is the most promising thing of the kind that has been done yet in British studios, and Jack Hulbert and Gordon Harker are a sound comedy team. A show for all ages.



THE ROAD TO LIFE (National Film Distributors)—A story of the lawless children of Russia, and the Soviet plan to make them into useful citizens. When Russia makes films like this she can't be beaten: the story is grand, the treatment sincere and imaginative, the acting—almost entirely by untrained boys—is profoundly moving. This film is not for people who mind being hurt; it is a pretty strong emotional purge. Dialogue is in Russian, with English titles; there is a new use of music as a dramatic background.

IGLOO (Universal)—This is a modern successor to **NANOOK OF THE NORTH**, with music and a spoken commentary. The Eskimo hero and heroine have been fitted with a love story, which they play with complete artlessness, but the real drama is in the reversal of all our familiar values in matters of life and death. The film is the fight for food and the fight for protection from blizzard; its statements are simple, deliberate and completely startling in their logic. Some of the slaughters of animals are not for imaginative children, but they are an inevitable part of the film's structure. Photography is good, and direction tense and bold.

GRAND HOTEL (Metro-Goldwyn).—Probably the best value for money the commercial talkie has ever produced. An intelligent translation of Vicki Baum's novel, broadly blocked in and boldly handled. Edmund Goulding's direction is virile and controlled; Garbo, the two Barrymores, Wallace Beery and Joan Crawford turn in their best performances to date. This is pretty strong melodrama, and not for the school-children; the elder young people will

THE ROAD TO LIFE

(National Film Distributors). This film will be shown during October at the Trocadero Theatre, London, S.E.

see it whether you want them to or not, so let them go and enjoy themselves.

THE VOICE OF THE WORLD (New Era)—A document of the radio and gramophone, made largely at H.M.V. works at Hayes, and directed by Arthur Elton of the Empire Marketing Board. Elton is not quite ready for such a wide canvas, and still plays too much for atmosphere, but much of his industrial material is very good indeed, and the whole film is a brave adventure in British documentation.

THE NEW GENERATION (New Era)—A short film of Chesterfield's educational system, which sounds dull, but isn't. It is charming, straightforward and persuasive; the photography has real imagination, and Stuart Legg's direction puts the whole thing into the class of major work. Insist on seeing this.

Other Recommendations

THE MAN I KILLED, Paramount, (U); **BRING 'EM BACK ALIVE**, Radio, (U); **THE MOUTHPIECE**, Warner, (A); **TOM BROWN OF CULVER**, Universal, (U); **MILLION DOLLAR LEGS**, Paramount, (U); **MEN OF TOMORROW**, London Film Productions, (U); **HORSE FEATHERS**, Paramount, (U).

A Hollywood Picture Book

The star of Hollywood may be waning, but it still holds glamour for the film-fan. Nevertheless extraordinarily little is yet in this country about the life and methods of work of the film-capital. Seeing is better than hearing or reading in a case of this sort, and therefore we welcome the inclusion in Routledge's 'Seen by the Camera' series of a volume on *Hollywood As it Really Is* (2s. 6d.). This comprises 60 photographs with an introduction and explanations by Dr. E. Debries, who is extremely successful in depicting with his camera not only the life and habits of film-stars, but the scenery of Hollywood and examples of how camera work and production of films are carried on. Many of the pictures are of exceptional photographic charm.

The Institute of Amateur Cinematographers

The man who makes cinematography his hobby but who regards clubs and movements with some suspicion will find the Institute of Amateur Cinematographers of the British Empire of great value to him in providing a solution of his cinematic problems and a clearing house of information on all kinds of points, including technical and legal, which confront the amateur worker. The I.A.C., in the words of its chairman, Mr. G. H. Sewell, aims at building an organisation "run by amateurs in the interests of amateurs, and concerned primarily with the individual worker . . . whether he be the veriest tyro or the fully fledged expert." The annual subscription is half a guinea, and application should be made to Mr. W. E. Chadwick, Hon. Sec., The Institute of Amateur Cinematographers, 7, Red Lion Square, London, W.C.1.

TECHNICAL AND TRADE REVIEWS

PROJECTORS FOR THE CLASSROOM—III

By L. J. Hibbert

Substandard Models: 8 mm. and 9.5 mm.

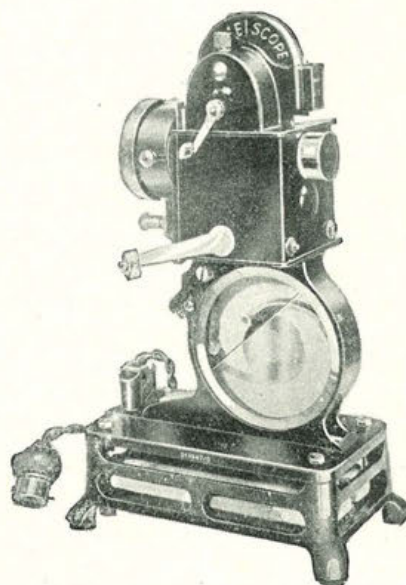
FOR use by the form master or mistress a silent film projector of small size and weight is most likely to be the type showing the greatest number of hours' use per week and therefore, if of good design and workmanship, to show the best ratio figure of 'hours used' to 'cost.'

This latter term should, of course, include capital outlay, cost of replacements, cost of adjustments and cleaning and the manufacture, hire or purchase of the films to be projected.

The manufacture of films by the teachers who will have to use them is a good thing provided that the quality of the films may be assured by a sufficiency of knowledge of the technical requirements on the part of all concerned. Cost will usually then be the determining factor in the choice of size of film and the camera and projector to handle it. The only sizes likely to be so employed are the substandard ones these are three in number, namely 9.5 mm.; 16 mm.; 8 mm.

The first two have been the accepted sizes for some years and now to them is added an 8 mm. formed by the longitudinal splitting of the 16 mm. film. This latter is exposed in a special camera and only one half of the film width is used; the film is then reversed in motion and travels through the camera a second time, exposing the other half, and finally the ribbon is split down its centre line and the ends joined. A special camera is obviously required while ordinary stock purchasable anywhere may be used in it. Film costs per minute of projection time are thus much lessened. The fact that this new system is fathered by the Kodak Company is enough to ensure its being a workable process. In spite of this it seems to be a pity that a third size is to be introduced. In my opinion any step which results in increasing the number of sizes of films or of types of apparatus, is to be considered retrograde since the lay user and buyer is bound to be confused and the effect of such bewilderment is likely to end in the whole matter being shelved, at any rate for a time. Progress in the educational use of films is only to be attained by lessening the difficulties in the way and not by their multiplication.

The ideal situation is undoubtedly that where two sizes only would exist; one for the professional user for public and semi-public showing to large audiences and one for amateur use and for the school room, research lab. and other similar purposes. We might expect, in such a case, to find that any camera or any projector would function smoothly with film of any make of the appropriate dimension. Retailers would benefit since the capital locked up in stock would be reduced in amount and the manufacturer would gain by the automatic increase



The Pathéscope Standard Projector at £6 15s. to take 9.5 mm. films

in the number of machines sold of any one type.

The reflex effect might very well be the lowering of selling prices and the subsequent result the increase of sales again.

At present the only firm handling the 8mm.

material and apparatus for its use is Messrs. Kodak Ltd. of Kingsway. The next size larger is 9.5 mm. and here the field is wider. The size was introduced by Messrs. Pathéscope Ltd., of Lisle Street, and they now offer three models of projector and two cameras. Messrs. Cinex Ltd., of Holborn market a projector and Messrs. Coronet Camera Company of Birmingham a camera; and a fourth camera is sold by Messrs. Peeling & Van Neck Ltd., of Holborn Circus, of the well known Cine Nizo manufacture.

The models of camera from Pathéscope Ltd., are priced at £6 6 0 and £10 10 0. Both of these are clockwork driven and fitted with f 3.5. lenses. Changing of film is of the utmost simplicity and is, of course, possible in full sunlight. These cameras are of high quality and can be purchased with every confidence. While dealing with the Pathéscope cameras it is, perhaps, well to mention that alternative lenses of high aperture or of longer focal length (telephoto) are fitted as special additions by Mr. Roth of Catford.

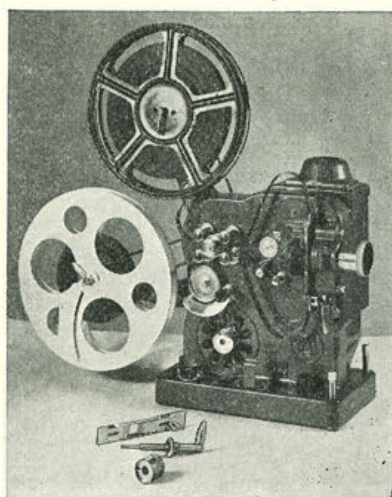
The Pathéscope Projectors are:—

The Kid at 55/- complete with resistance for mains up to 250 v.

The Standard at £6 15 0; with extras: resistance for pressures above 110 v., 10/-; motor £3 0 0 and super attachment for 300 ft. reels £2 2 0;

The Lux at £21 10 0. This price includes built in motors, super attachment integral with projector, high voltage resistance ammeter, cooling fan and interchangeable lens mounting.

The projector sold by Cinex Ltd., is a special model of 16 mm. size and is capable of showing the best quality of pictures from both 16 mm. and 9.5 films. The change from one to the other is made in about one minute and involves changing the sprocket wheel and the gate pressure pad. No tools are



**PAILLARD BOLEX
MODEL 'D' PRO-
JECTOR** made by
Cinex Ltd. for 16
mm. and 9.5 mm.
film. Price £35

required for this; the light is powerful and the machine quiet. I do not know of a better machine for substandard projection. The price is £35 0 0 and resistance is £1 15 0.

The Coronet Camera is the cheapest sold here and cost 55/-. It is capable of good work and is good value. For 110/- it is thus possible to obtain a camera and projector ready for use.

The Cine Nizo camera is a two speed model normal 16 picture and 32 picture adjustment being provided. Single picture work with a hand crank is also possible, and a direct prism focussing device is an extra. The standard camera with f3.5 lens was sold in 1931 at £14 5 0.

The recent duties have probably caused the camera to vanish from English stock shelves, but the agents could no doubt supply present prices. This is the only model giving two speeds.

Below is a list of addresses whence information may be obtained regarding all these goods.

Messrs. Pathéscope Ltd.	5, Lisle St., Leicester Square, W.C.
„ Kodak Ltd.	Kodak House, Kingsway, W.C.
„ Cinex Ltd.	70, High Holborn, W.C.1.
„ Coronet Camera Company Ltd.	48, Great Hampton Street, Birmingham.
„ Peeling & Van Neck, Ltd.	4-6, Holborn Circus, E.C.1.
Mr. Roth	85, Ringstead Road, Catford, S.E.

NEW MODELS IN BRIEF

The Picturetone Sound Equipment Co., Ltd., of Willing Building, Grays Inn Road, W.C.1. have now ready two models of sound projector. These are both 35 mm. machines and are intended for the ordinary picture palace and the institute or school respectively.

The larger model has been inspected and the results of its use watched. Quality of reproduction is all that may be desired under the conditions obtaining, namely a small heavily damped auditorium and a very old and worn film.

The smaller and more easily moved machine is not yet available, but promises to be a real engineering job and should make for simplicity and ease of working by those who may not be trained in the art of sound film projection.

In addition to the Picturetone 35 mm. equipment of fixed or semi-fixed nature, attention may be drawn to the apparatus designed by the London Electric Service Company.

Instead of a non-demountable projector on a heavy base the outfit is constructed to pack into cases. One box contains the whole projector with lamp, motor and sound head. The mains equipment of amplifier, rectifier, fades,

is found in the second box, while box 3 holds the loud speaker. Ease and consequently speed of erection forms a claim for the buyer's interest as also the use of a heavy damped fly wheel to obviate tendencies for variation of speed of the film in the sound head; this error gives rise to unpleasant changes of pitch which the fly wheel prevents by extinguishing the cause.

British Talkatome Ltd., have now on show a complete 16 mm. or 9.5 mm. sound film apparatus of which the following are the salient points:—a simple playing desk for records driven from the projector by suitable gears. This may be arranged to give a speed of 33½ revs. per minute or 78 r.p.m. as desired for use with professional records or those of standard retail form. The whole plant is purchasable in units so that, given a projector and screen, one may then add the amplifier unit and playing desk or else, if a good wireless set is also available, the playing desk alone is needed. Results, as seen, appear highly satisfactory and the whole equipment, which included a 'Bolex' model D projector, functioned in a smooth and creditable manner.

Prices are as follows:—

Playing Desk	..	..	25 guineas
Amplifier (A.C. or D.C.)	..	..	25 guineas
Speaker-screen	..	..	12 guineas
Cost of adapting projector	..	approx.	2 guineas

The firm undertakes the recording of speech, music or other sounds at its premises in Wells Street, Jermyn Street, these being synchronised with the appropriate film.

Messrs. R. F. Hunter, Ltd., makers of the Celfix screen have issued a new and comprehensive list which gives particulars of every possible screen requirement for projectors of small and standard sizes.

An examination has been made of this firm's excellent Celfix screen (silver) which is very convenient to handle, and good value at the price. Size 0 (27 x 20 in.) is £3 10s., with the more satisfactory beaded surface £4 10s. L.J.H.

SCHOOL RECEIVING APPARATUS

Gecophone "Nomad" All-Electric Receiver for D.C.
Mains. Price 23 Gns.

Until recently the large areas with direct current electric supply were forced to be content with compromises in the matter of receiving sets. These, for obvious technical reasons, varied a good deal in efficiency, not only as between set and set, but also, in individual sets, from day to day. The arrival of the indirectly heated D.C. valve heralded the real advance which is represented by the General Electric Company's "Nomad" receiver. The technically-inclined person judges the radio products of the three or four big manufacturers with severity. Probably illogically, he expects from them a high degree of quality together with the additional value for money which should come from large-scale production. In this instance, unless he is a purist of the type that cannot be satisfied by any commercial wireless receiver, he will find few points of criticism in this set. From every point of view the "Nomad" is in the highest class of 1933 receivers.

The technical expert can obtain all the information he desires from the manufacturers. The non-technical user will find the plainest instructions in the useful booklet which accompanies the receiver.

There are three main controls—a switch for long waves, short waves and gramophone reproduction, the tuning control (which embodies an easily read illuminated scale) and a combined volume control and on-and-off switch. A fourth control is a local-distance switch which can be used to reduce excessive signal strength from powerful stations. In North London, a large number of foreign stations were received at good strength and the user in most districts can be assured of receiving the B.B.C. transmissions, with a number of alternatives, at full strength.

The quality was always excellent, and at times, with various transmissions, amazingly good, when the limitations set by a fully loaded loud-speaker with a comparatively small baffle area are taken into consideration. The "Nomad," however, needs no excuses. Such technical difficulties of this kind have been overcome with great skill. The loud speaker is particularly satisfactory and there is no trace of the irritating buzz and rattle which was characteristic of too many of the smaller speakers of a year ago. This energised moving coil speaker is an entirely new product of the G.E.C. There are sockets for an additional speaker, the use of which gives extremely realistic reproduction in a large room.

The receiver, which operates on D.C. mains of 200-260 volts, is economical in operation, and has been tested and approved by the Central Council for School Broadcasting.

The set is illustrated below.

H.R.P.

CENTRAL COUNCIL RECOMMENDATIONS FOR SCHOOLS

The Central Council for School Broadcasting has issued its first list of broadcast receiving apparatus suitable for use in schools, the list consisting of all-mains sets and loud speakers only. It is a matter for congratulation that representative manufacturers have submitted suitable sets and loud speakers for an adequate test and have guaranteed their performance.

The first two pages of the pamphlet embodying the list contain practical information with which every educationalist using wireless receivers should be familiar. Where particular information is desired it is strongly advised that enquiries be made of the secretary of the Central Council, at Broadcasting House. The technical section of this journal will also be glad to assist.

The following apparatus is approved by the Central Council :—

Burne-Jones & Company, Limited, Magnum House, 296, Borough High Street, London, S.E.1.

THREE-VALVE A.C. ALL-MAINS "MAGNUM" SCHOOLS RECEIVER.

With built-in moving-coil loudspeaker. Designed with fixed tuning for alternative reception of two transmissions only, change-over being effected by means of a switch. Enclosed in cabinet with lock-up back. Provision for use of additional loud speakers, and for disconnecting the built-in loudspeaker. Provision for use of a gramophone pick-up.

RETAIL PRICE £16 15 0

A. C. Cossor, Limited, Cossor Works, Highbury Grove, London, N.5.

TWO-VALVE A.C. ALL-MAINS RECEIVER, Model 222A.

With built-in moving-coil loudspeaker. Provision for use of additional loudspeakers, and for disconnecting the built-in loudspeaker. Provision for use of a gramophone pick-up.

RETAIL PRICE £12 0 0

FOUR-VALVE A.C. ALL-MAINS RECEIVER, Model 533A.

With built-in moving-coil loudspeaker. Provision for use of additional loudspeakers, and for disconnecting the built-in loudspeaker. Provision for use of a gramophone pick-up.

RETAIL PRICE £19 3 0

Ferranti, Limited, Bush House, Aldwych, London, W.C. 2.

THREE-VALVE A.C. ALL-MAINS RECEIVER "MOVING-COIL CONSOLE" MODEL.

With built-in-loudspeaker. Provision for use of additional loudspeakers, but not for disconnecting the built-in loudspeaker. Provision for use of a gramophone pick-up.

RETAIL PRICE (in "Rexine" covered cabinet) £18 18 0

RETAIL PRICE (in Walnut cabinet) £19 19 0

General Electric Company, Limited, Magnet House, Kingsway, London, W.C. 2.

FOUR-VALVE A.C. ALL-MAINS "VIKING" RECEIVER.

With built-in moving-coil loudspeaker. Provision for use of additional loudspeakers, but not for disconnecting the built-in loudspeaker. Provision for use of a gramophone pick-up.

RETAIL PRICE £24 3 0

FOUR-VALVE D.C. ALL-MAINS "NOMAD" RECEIVER.

With built-in moving-coil loudspeaker. Provision for use of additional loudspeakers, but not for disconnecting the built-in loudspeaker. Provision for use of a gramophone pick-up.

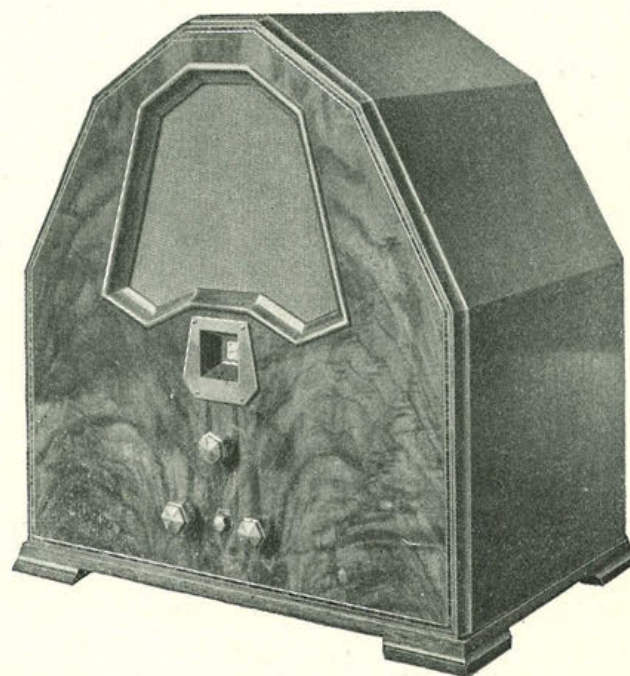
RETAIL PRICE £24 3 0

The Gramophone Company, Limited, 363-367, Oxford Street London, W.1.

THREE-VALVE A.C. ALL-MAINS RECEIVER Model 435.

With built-in moving-coil loudspeaker. Provision for use of additional loudspeakers, but not for disconnecting the built-in loudspeaker. Provision for use of a gramophone pick-up.

RETAIL PRICE £17 17 0



GECOPHONE "NOMAD" All Electric receiver for D.C. Mains, price 23 guineas. (Reviewed above)

The Gramophone Company Ltd., (Contd.)

THREE-VALVE A.C. ALL-MAINS RECEIVER, "SCHOOLS" MODEL.

With built-in moving-coil loudspeaker. All enclosed in lock-up cabinet, specially designed for school use. Provision for use of additional loudspeakers, and for disconnecting the built-in loudspeaker. Provision for use of a gramophone pick-up. RETAIL PRICE £19 15 0

THREE-VALVE D.C. ALL-MAINS RECEIVER, Model 435.

With built-in moving-coil loudspeaker. Provision for use of additional loudspeakers, but not for disconnecting the built-in loudspeaker. Provision for use of a gramophone pick-up. RETAIL PRICE £17 17 0

Philips Lamps, Limited, Philips House, 145, Charing Cross Road, London, W.C. 2.

FOUR-VALVE A.C. ALL-MAINS RECEIVER, Type 830A.

With built-in moving-coil loudspeaker. Cabinet open at the back. Provision for use of additional loudspeakers and for disconnecting the built-in loudspeaker. Provision for use of a gramophone pick-up. RETAIL PRICE £16 16 0

FIVE-VALVE A.C. ALL-MAINS RECEIVER, Type 630A.

With built-in moving-coil loudspeaker. Cabinet open at the back. Provision for use of additional loudspeakers, and for disconnecting the built-in loudspeaker. Provision for use of a gramophone pick-up. RETAIL PRICE £24 3 0

Precision Electric, Limited, 21-23, St. Paul's Square, Birmingham.

THREE-VALVE A.C. ALL-MAINS RECEIVER, "AREGA" Model 34.

With built-in moving-coil loudspeaker. Provision for use of additional loudspeakers. Provision for use of a gramophone pick-up. RETAIL PRICE £18 18 0

THREE-VALVE D.C. ALL-MAINS RECEIVER, "AREGA" Model 34.

With built-in moving-coil loudspeaker. Provision for use of additional loudspeakers. Provision for use of a gramophone pick-up. RETAIL PRICE £18 18 0

Pye-Radio, Limited, Radio Works, Cambridge.

FOUR-VALVE A.C. ALL-MAINS "SCHOOLS" RECEIVER.

With moving-coil loudspeaker mounted in separate cabinet. Special lock-up cabinet designed for school use, with set in upper portion and cupboard below to accommodate loudspeaker when desired. Loudspeaker matching unit included, enabling one or two additional loudspeakers of similar type to be used. Provision for use of a gramophone pick-up. RETAIL PRICE £37 10 0

Radio Instruments, Limited, Purley Way, Croydon, Surrey.

THREE-VALVE A.C. ALL-MAINS RECEIVER, R.I. "MADRIGAL."

With built-in moving-coil loudspeaker. All enclosed in a lock-up cabinet specially designed for school use. Provision for use of additional loudspeakers, and for disconnecting the built-in loudspeaker. Provision for use of a gramophone pick-up. RETAIL PRICE £30 0 0

Columbia Graphophone Company, Limited, Columbia House, Clerkenwell Road, London, E.C.1.

FOUR-VALVE A.C. ALL-MAINS RADIO-GRAMOPHONE, Model 603.

With built-in moving-coil loudspeaker. Provision for use of additional loudspeakers, but not for disconnecting the built-in loudspeaker. RETAIL PRICE £35 14 0

The Plessey Company, Limited, Vicarage Lane, Ilford, Essex.

SEVEN-VALVE A.C. ALL-MAINS "STENODE." SUPER-HETERODYNE RADIO-GRAMOPHONE

With built-in moving-coil loudspeaker. No provision for use of additional loudspeakers. RETAIL PRICE £63 0 0

RECEIVING SETS ONLY

General Electric Company, Limited, Magnet House, Kingsway, London, W.C. 2.

FOUR-VALVE D.C. ALL-MAINS RECEIVING SET, "SCHOOLS" MODEL.

Enclosed in special cabinet with lock-up back. Provision for use of a gramophone pick-up. RETAIL PRICE £22 10 0

G. Scott Sessions and Company, 1, Castle Terrace, Muswell Hill, London, N.10.

FOUR-VALVE (THREE-STAGE) A.C. ALL-MAINS "SCHOOLS" RECEIVING SET.

Enclosed in lock-up cabinet. Specially designed for school use. Suitable for operating up to four loudspeakers. Provision for use of a gramophone pick-up. RETAIL PRICE £34 0 0

A MODERN AID FOR THE DEAF

The coming of the talkies meant the closing of the cinema to a very large number of people who had come to look upon it as their only means of public entertainment: most modern aids to learning as well as modern amusements are out of reach of the deaf, and of the many more who are just "hard of hearing." For this reason an acoustic invention of proved efficiency like the Ardenite is in every sense a modern aid, and its installation in cinemas and lecture halls a matter whose importance is fortunately being recognised. This particular set is constructed for talkies on the valve amplifier principle: there are various types which enable conversation, lectures, broadcast programmes and music to be heard without difficulty or distortion.

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The Editorial Board of SIGHT AND SOUND will be glad to arrange for apparatus within the scope of the journal to be tested and reviewed by qualified independent contributors, under headings which will include:

- Large cinema projectors
- Portable cinema projectors
- Sound amplifiers
- Small public address systems
- Portable cinema cameras
- Accessories for use with projectors and cameras
- Still projector apparatus
- Wireless receivers
- Loud speakers
- Radio-gramophones
- Acoustic gramophones

Accessories for use with radio apparatus.

Except in the case of large projectors and very heavy apparatus it is assumed that the items generally reviewed are sold for operation by non-technical persons. All such apparatus will be subjected to a three-months test before a report is published.

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Manufacturers, whose co-operation is cordially invited, are requested to communicate with the Editorial Secretary, SIGHT AND SOUND 39, Bedford Square, London, W.C.1.